

L2 cDNA LIBRARY

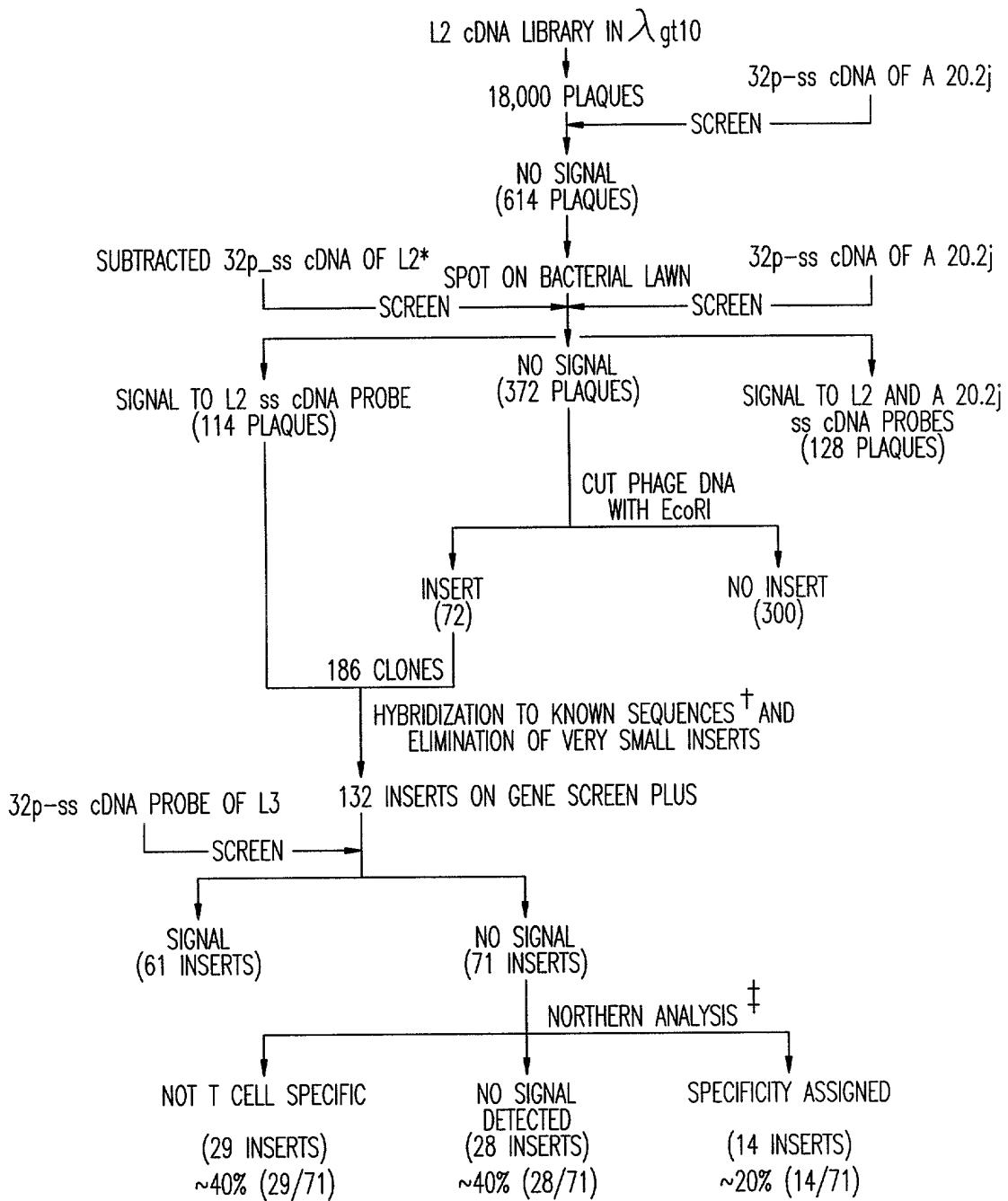


FIG. 1A

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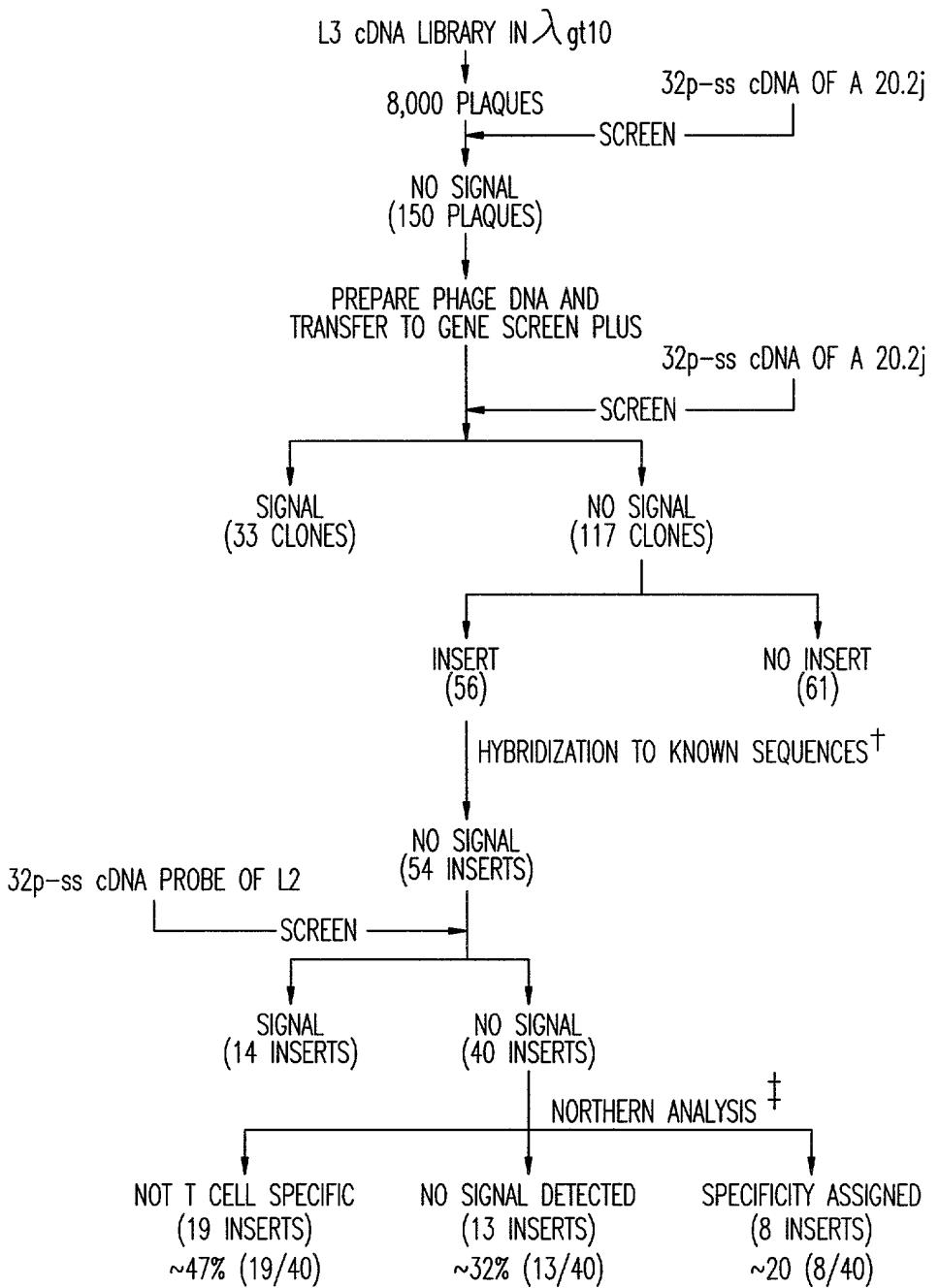


FIG. 1B

TITLE: MURINE 4-1BB GENE
 INVENTORS NAME: Byoung S. Kwon
 DOCKET NO.: 740.009US2

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| | |
|------|--|
| -145 | ATGTC |
| -140 | CATGAACTGC TCAGTGGATA AACACCAACGG GATATCTCTG TCTAAAGGAA TATTACTACA CCACGGAAAAG |
| -70 | GACACATTCG ACAACAGGAA AGGAGCCTGT CACAGAAAAC CACAGTGTCC TGTGCATGTG ACATTCGCC |
| 1 | ATG GGA AAC AAC TGT TAC AAC CTG GTG GTC ATT GTG CTG CTG CTA GTG GCC TGT GAG AAG 60 |
| 1 | <u>Met Gly Asn Asn Cys Tyr Asn Val Val Val Ile Val Leu Leu Leu Val Gly Cys Glu Lys</u> 20 |
| 61 | GTC GGA GCC GTG CAG AAC TCC TGT GAT AAC TGT CAG CCT GGT ACT TTC TGC AGA AAA TAC 120 |
| 21 | <u>Val Gly Ala Val Gln Asn Ser Cys Asp Asn Cys Gln Pro Gly Thr Phe Cys Arg Lys Tyr</u> 40 |
| 121 | AAT CCA GTC TGC AAG AGC TGC CCT CCA AGT ACC TTC TCC AGC ATA GCT GGA CAG CCG AAC 180 |
| 41 | <u>Asn Pro Val Cys Lys Ser Cys Pro Pro Ser Thr Phe Ser Ser Ile Gly Gly Gln Pro Asn</u> 60 |
| 181 | TGT AAC ATC TCC AGA GTG TGT CCA GGC TAT TTC AGG TTC AAG AAG TTT TGC TCC TCT ACC 240 |
| 61 | <u>Cys Asn Ile Cys Arg Val Cys Ala Gly Tyr Phe Arg Phe Lys Lys Phe Cys Ser Ser Thr</u> 80 |
| 241 | CAC AAC GCG GAG TGT GAG TGC ATT GAA GGA TTC CAT TGC TTG GGG CCA CAG TGC ACC AGA 300 |
| 81 | <u>His Asn Ala Glu Cys Glu Cys Ile Glu Gly Phe His Cys Leu Gly Pro Gln Cys Thr Arg</u> 100 |
| 301 | TGT CAA AAG GAC TGC AGG CCT GGC CAG GAG CTA ACG AAG CAG GGT TGC AAA ACC TGT AGC 360 |
| 101 | <u>Cys Glu Lys Asp Cys Arg Pro Gly Gln Glu Leu Thr Lys Gln Gly Cys Lys Thr Cys Ser</u> 120 |
| 361 | TTG GGA ACA TTT AAT GAC CAG AAC GGT ACT GGC GTC TGT CGA CCC TGG ACG AAC TGC TCT 420 |
| 121 | <u>Leu Gly Thr Phe Asn Asp Gln Asn Gly Thr Gly Val Cys Arg Pro Trp Thr Asn Cys Ser</u> 140 |
| 421 | CTA GAC GGA AGG TCT GTG CTT AAG ACC GGG ACC ACG GAG AAG GAC GTG GTG TGT GGA CCC 480 |
| 141 | <u>Leu Asp Gly Arg Ser Val Leu Lys Thr Gly Thr Glu Lys Asp Val Val Cys Gly Pro</u> 160 |
| 481 | CCT GTG GTG AGC TTC TCT CCC AGT ACC ACC ATT TCT GTG ACT CCA GAG GGA GGA CCA GGA 540 |
| 161 | <u>Pro Val Val Ser Phe Ser Pro Ser Thr Thr Ile Ser Val Thr Pro Glu Gly Gly Pro Gly</u> 180 |
| 541 | GGG CAC TCC TTG CAG GTC CTT ACC TTG TTC CTG GCG CTG ACA TCG GCT TTG CTG CTG GCC 600 |
| 181 | <u>Gly His Ser Leu Gln Val Leu Thr Leu Phe Leu Ala Leu Thr Ser Ala Leu Leu Ala</u> 200 |
| 601 | CTG ATC TTC ATT ACT CTC CTG TTC TCT GTG CTC AAA TGG ATC AGG AAA AAA TTC CCC CAC 660 |
| 201 | <u>Leu Ile Phe Ile Thr Leu Leu Phe Ser Val Leu Ile Pro Ile Arg Lys Lys Phe Pro His</u> 220 |
| 661 | ATA TTC AAG CAA CCA TTT AAG AAG ACC ACT GGA GCA GCT CAA GAG GAA GAT GCT TGT AGC 720 |
| 221 | <u>Ile Phe Lys Gln Pro Phe Lys Lys Thr Gly Ala Ala Gln Glu Asp Ala Cys Ser</u> 240 |
| 721 | TGC CGA TGT CCA CAG GAA GAA GGA GGA GGA GCA GGC TAT GAG CTG TGA TCTACTATC 780 |
| 241 | <u>Cys Arg Cys Pro Gln Glu Glu Gly Gly Gly Tyr Glu Leu ---</u> |

FIG. 2A

781 CTAGGACATG TGTGGCCGA AACCGAGAAG CACTAGGACC CCACCATCCT GTGGAACAGC ACAAGCAACC 850
851 CCACCACCT GTTCTTACAC ATCATCCTAG ATGATGTGTG GGCGCGCACC TCATCCAAGT CTCTTCTAAC 920
921 GCTAACATAT TTGCTTTAC CTTTTTAAA TCTTTTTA AATTTAATT TTATGTGTG GAGTGTGG 990
991 CCTGCCTGTA TGCACACGTG TGTGTGTGT TGTGTGTAC ACTCCTGATG CCTGAGGAGG TCAGAAGAGA 1060
1061 AAGGGTTGGT TCCATAAGAA CTGGAGTTAT CGATGGCTGT GAGCCGGnnn GATAGGTCGG GACGGAGACC 1130
1131 TGTCTTCTTA TTTAACGTG ACTGTAT ~~AAT~~ AAAAAGGGG TGATATTCG GGAATTGTAG AGATTGTCCT 1200
1201 GACACCCCTTC TACTTAATGA TCTAAGAGGA ATTGTTGATA CGTAGTATAAC TGTATATGTG TATGTATATG 1270
1271 TATATGTATA TATAAGACTC TTTTACTGTC AAAGTCACC TAGACTGTCT GGTTACCAGG TCAATTAT 1340
1341 TGGACATTTT ACGTCACACA CACACACACA CACACACACA CACGTTTATA CTACGTACTGT TATCGGTAT 1410
1411 TCTACGTCA ATAATGGGAT AGGGTAAAAG GAAACCAAAG ACTGAGTGAT ATTATTGTGGA GGTGACACA 1480
1481 CTACCCCTTC TGGGTACGTA CGGACAGACC TCCTCGGAC TGTCTAAAAC TCCCCTAGA AGTCTCGTCA 1550
1551 AGTTCCCGGA CGAACAGGAC AGAGGAGACA CAGTCGAAA AGTTATTTT CCGGCAAATC CTTTCCCTGT 1620
1621 TTCTGACAC TCCACCCCTT GTGGACACTT GAGTGTCACTC CTTGGCCGG AAGGTCAAGGT GGTACCCGTC 1690
1691 TGTAGGGCG GGGAGACAGA GCCGCGGGGG AGCTACGAGA ATCGACTCAC AGGGCGCCCC GGGCTTCGCA 1760
1761 AATGAAACTT TTTAACATCTC ACAAGTTCG TCCGGGCTCG GCGGACCTAT GCGCTCGATC CTTATTACCT 1830
1831 TATCCTGGCG CCAAGATAAA ACAACCAAA GCCTTGACTC CGGTACTAAT TCTCCCTGCC GGCCCCCGTA 1900
1901 ACCATAACGC GGCGATCTCC ACTTTAACAA CCTGGCCGGC TTCTGCCCTGG TCTCGCTTC GTAAACGGTT 1970
1971 CTTACAAAAG TAATTAGTTC TTGCTTTCAAG CCTCCAAGCT TCTGCTAGTC TATGGCAGCA TCAAGGCTGG 2040
2041 TATTGCTAC GGCTGACCCG TACGCCCGG CAATAAGGGT ACTGGCCGGC CCGTCAAGG CCCTTGGTT 2110
2111 TCAGAAACCC AAGGCCCCCC TCATACCAAC GTTTCGACTT TGATTCTTGC CGGTACGTGG TGGTGGGTGC 2180
2181 CTTAGCTCTT TCTCGATAGT TAG AC

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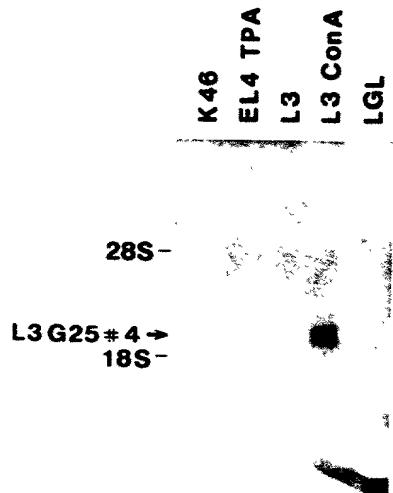


FIG. 3A

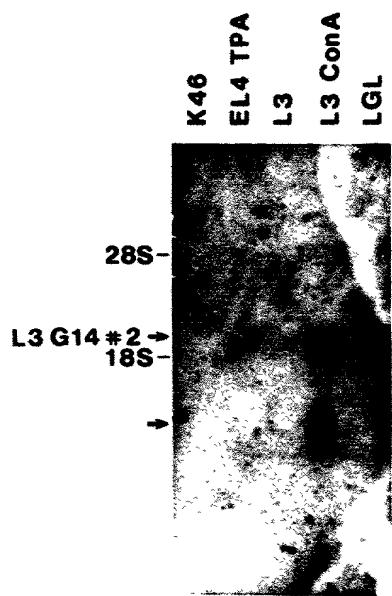


FIG. 3B



FIG. 3C

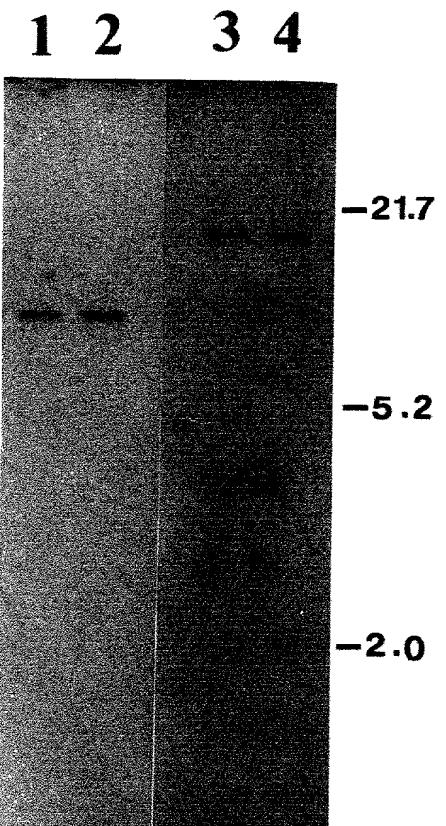


FIG. 4

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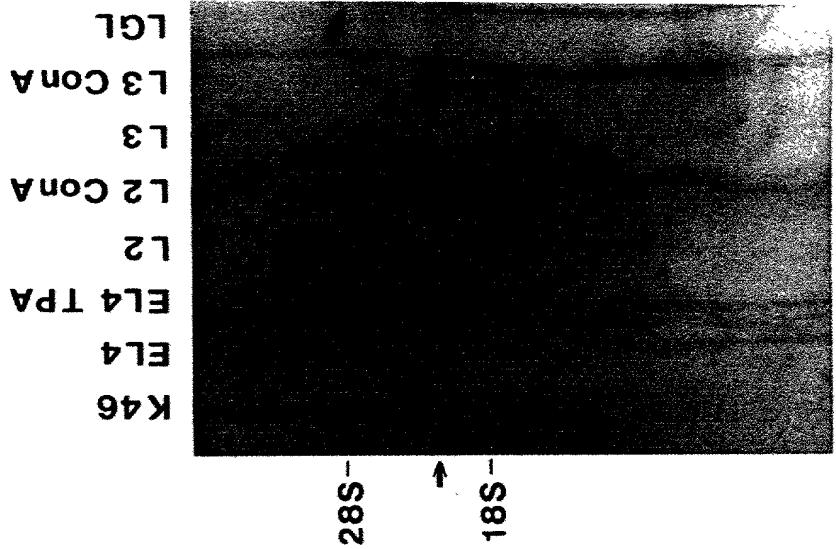


FIG. 5B

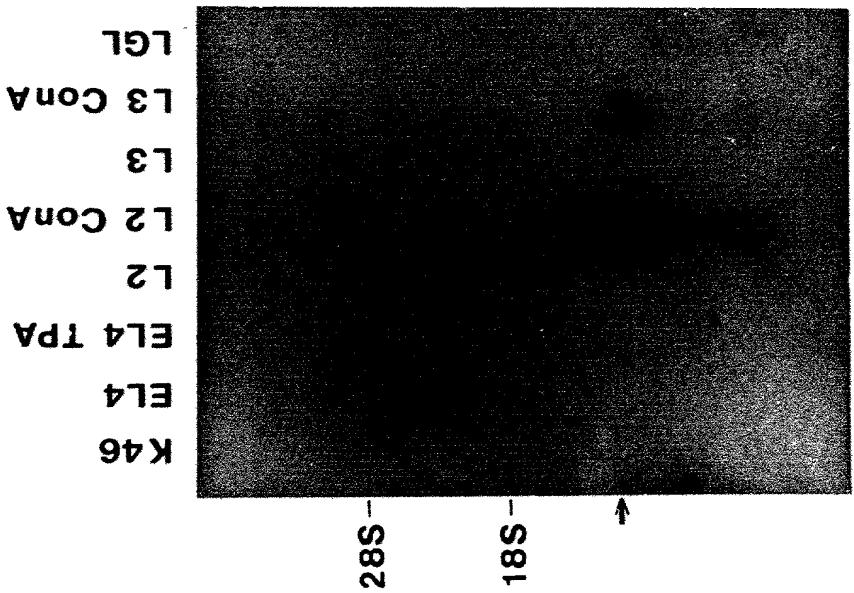


FIG. 5A

TITLE: MURINE 4-1BB GENE
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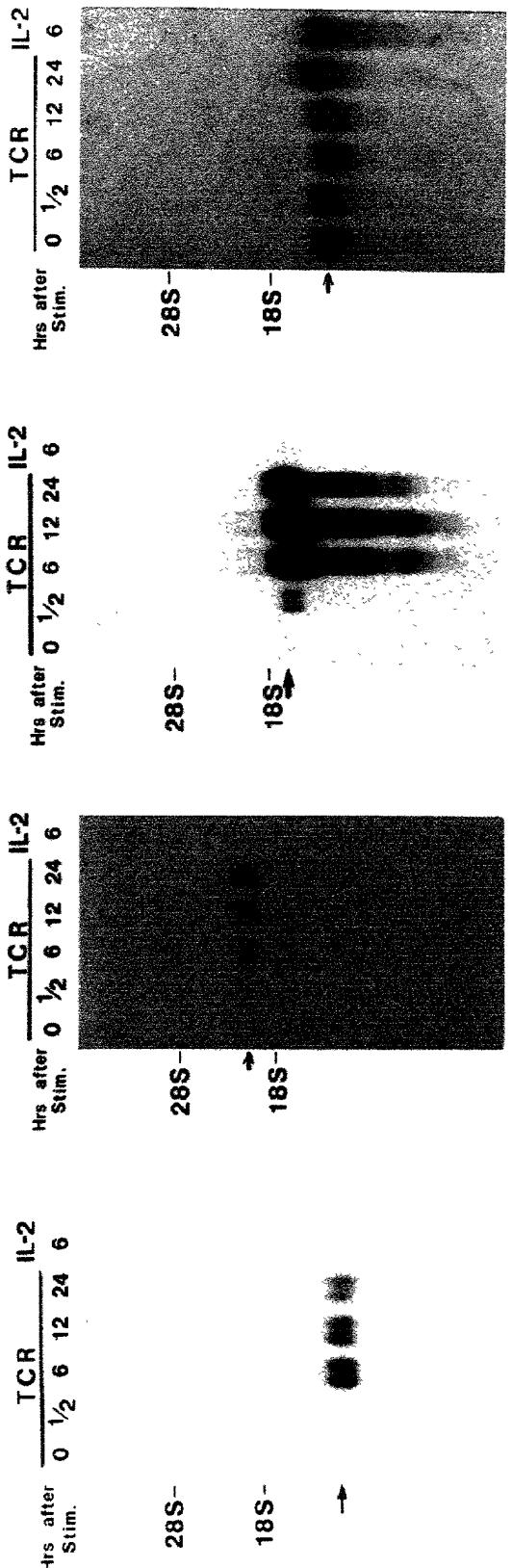


FIG. 6A
FIG. 6B

FIG. 6C
FIG. 6D

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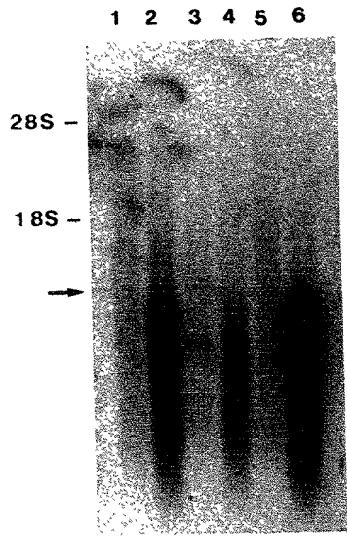


FIG. 7A

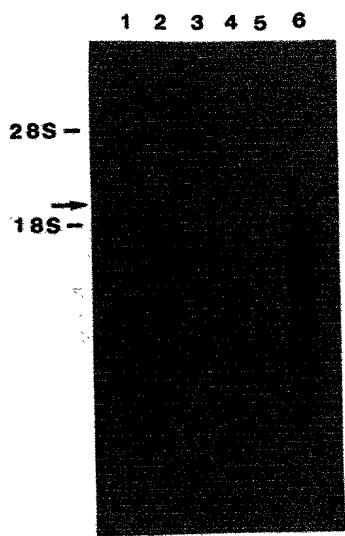


FIG. 7B

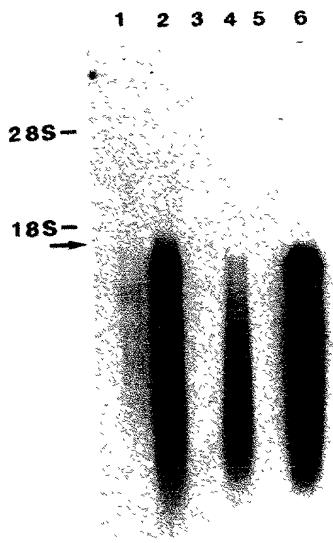


FIG. 7C

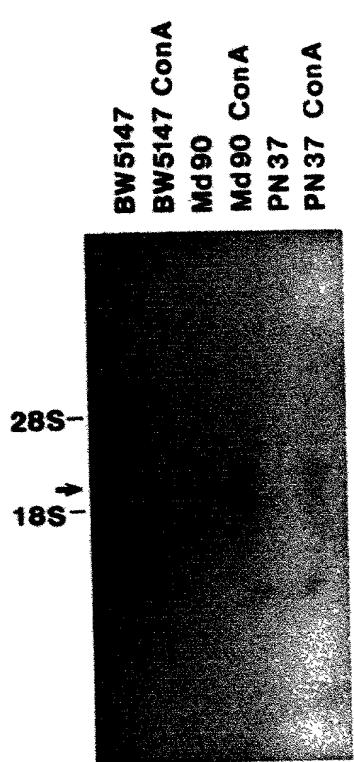


FIG. 8A

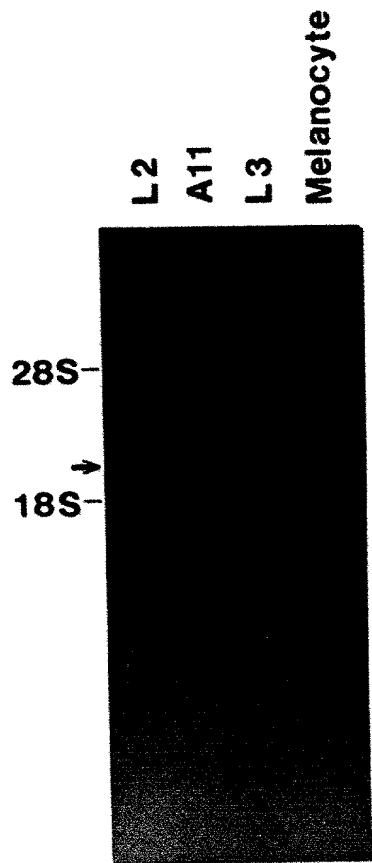


FIG. 8B

TITLE: MURINE 4-1BB GENE
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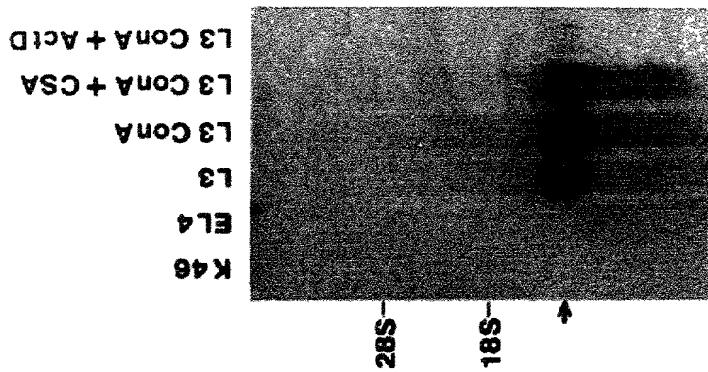


FIG. 9D

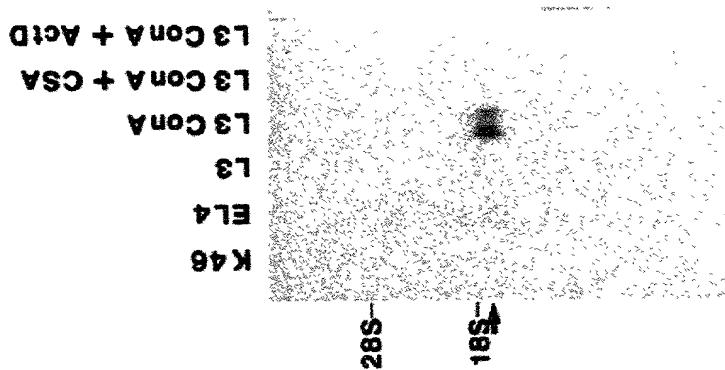


FIG. 9C

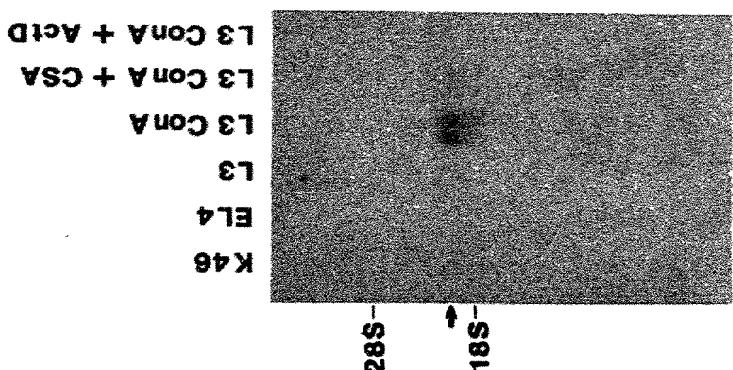


FIG. 9B

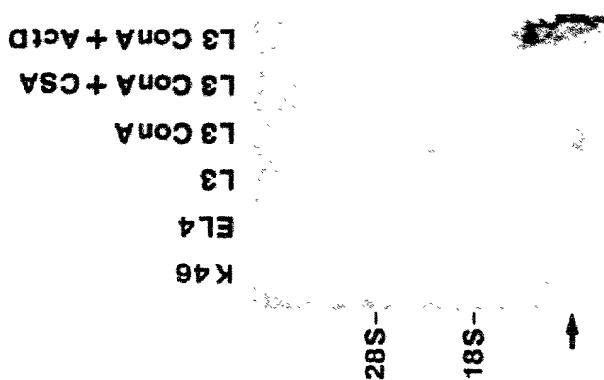


FIG. 9A

TITLE: MURINE 4-1BB GENE
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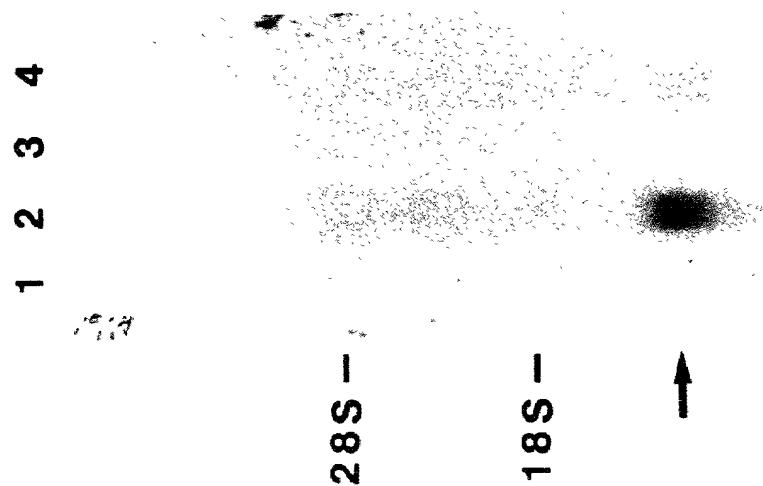
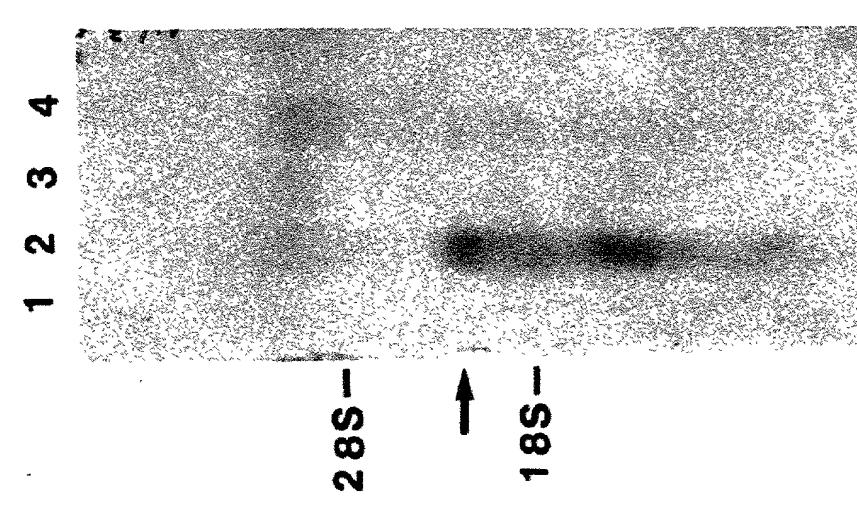
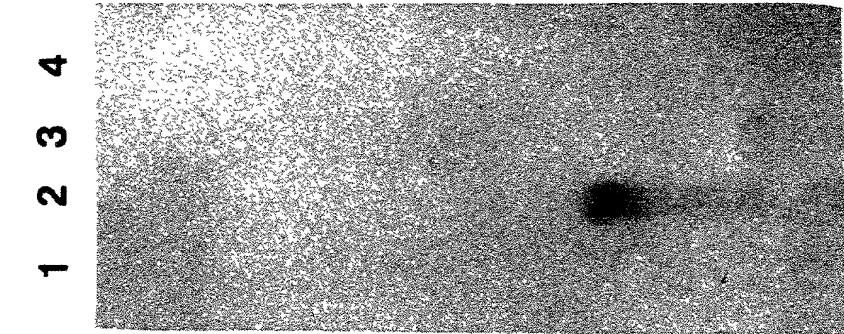


FIG. 10A

FIG. 10B

FIG. 10C

TITLE: MURINE 4-1BB GENE
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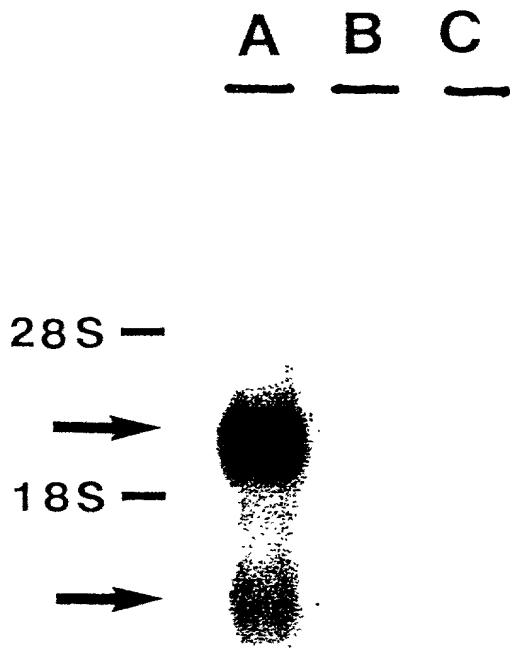


FIG. 11

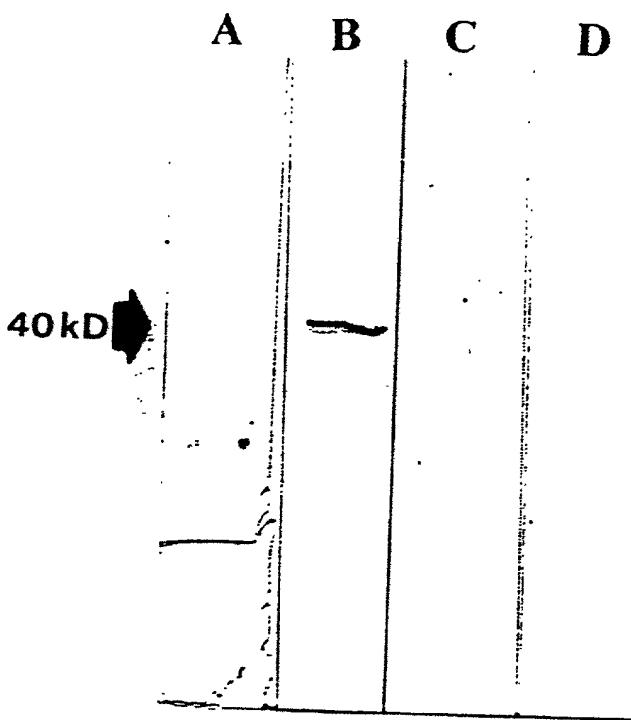


FIG. 12

TITLE: MURINE 4-1BB GENE
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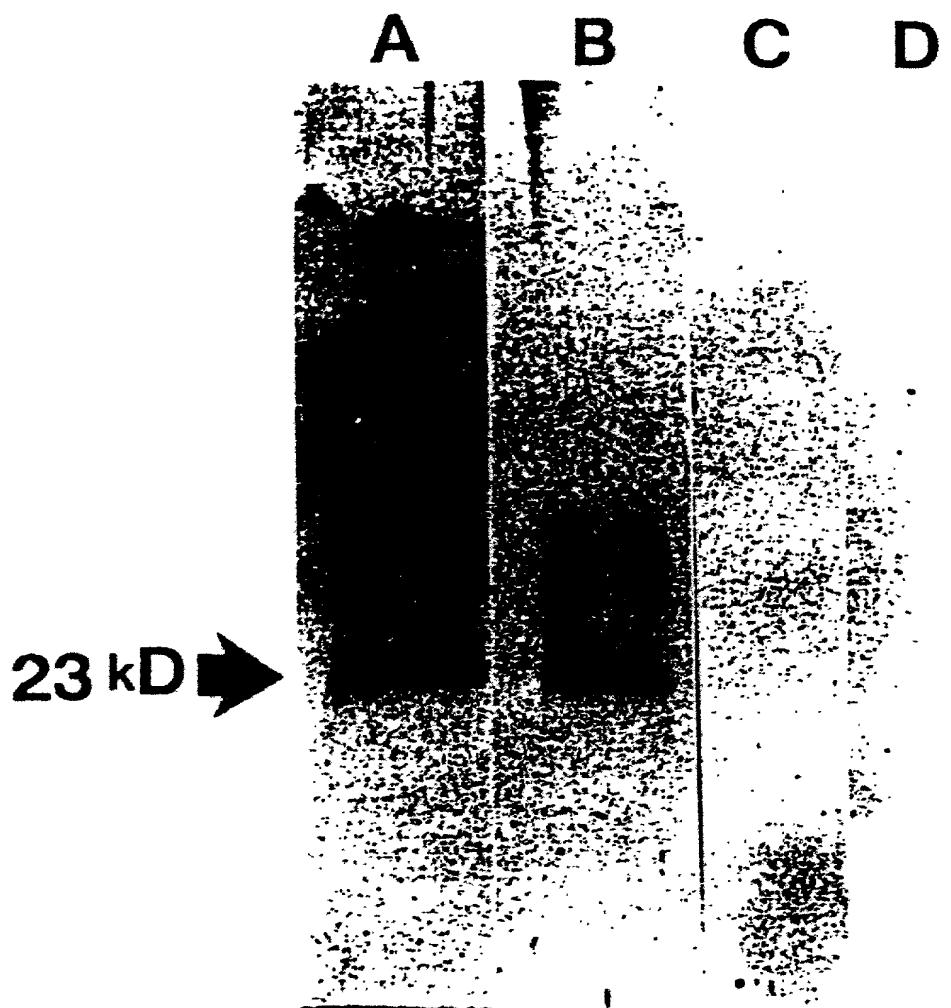


FIG. 13

TITLE: MURINE 4-1BB GENE
INVENTORS NAME: Byoung S. Kwon
DOCKET NO.: 740.009US2

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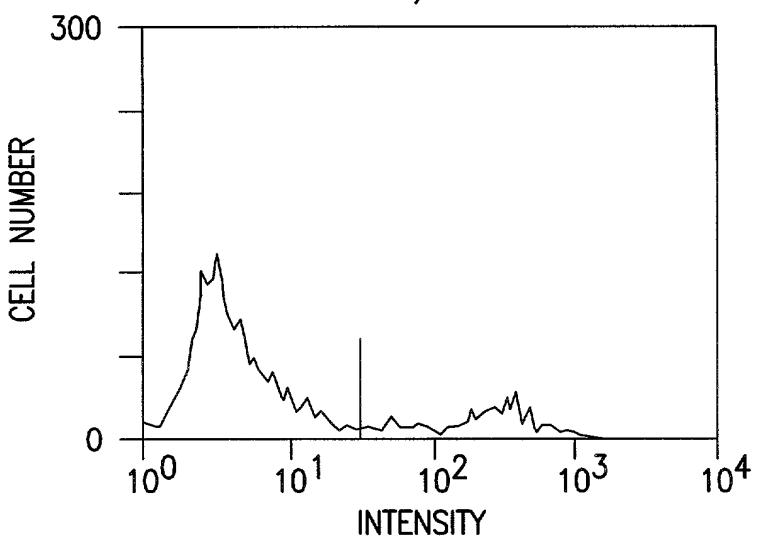


FIG. 14A

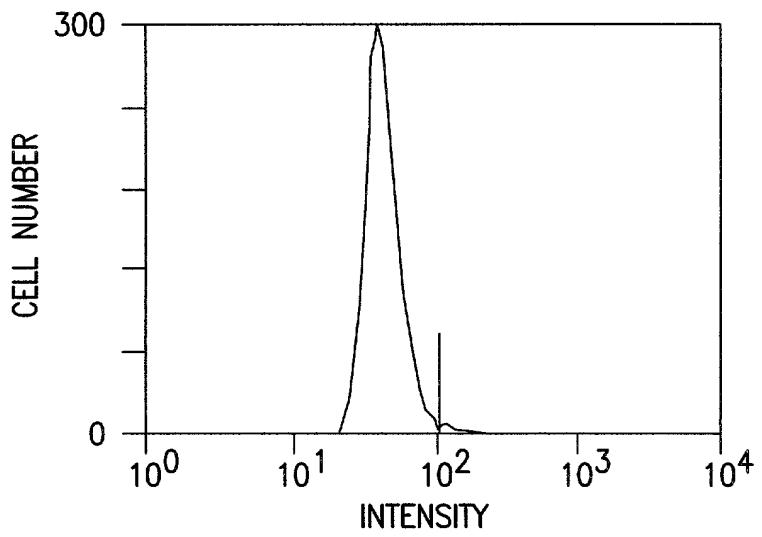


FIG. 14B

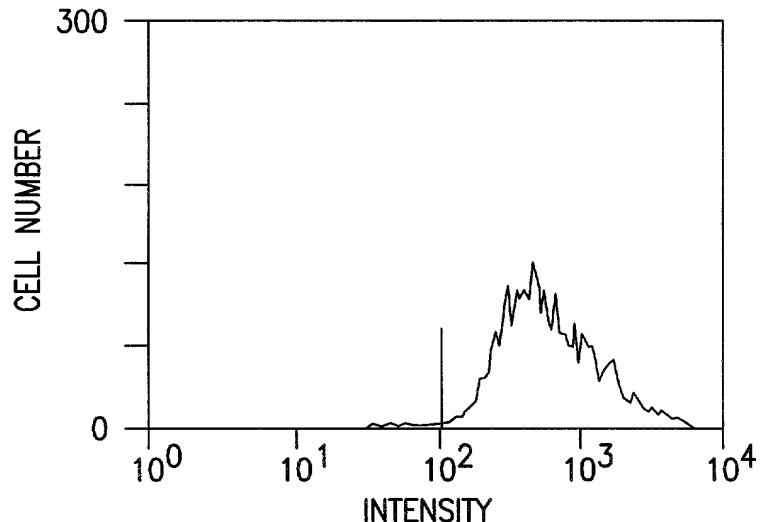


FIG. 14C

TITLE: MURINE 4-1BB GENE
INVENTORS NAME: Byoung S. Kwon
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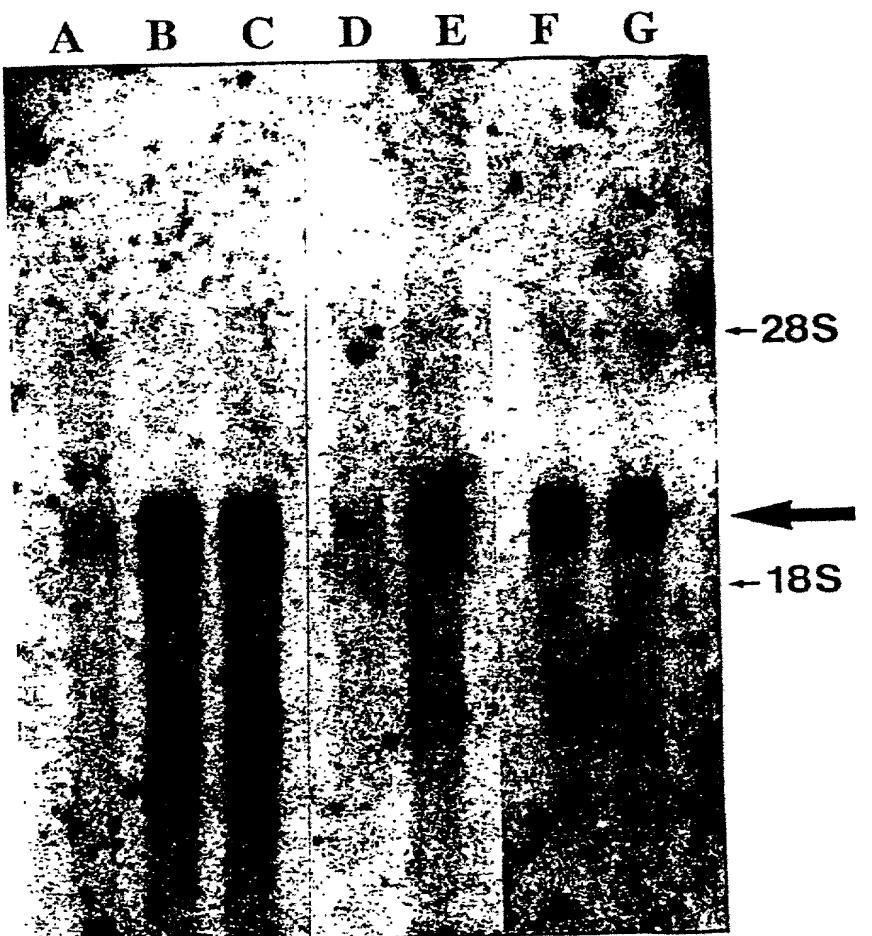


FIG. 15

TITLE: MURINE 4-1BB GENE
INVENTORS NAME: Byoung S. Kwon
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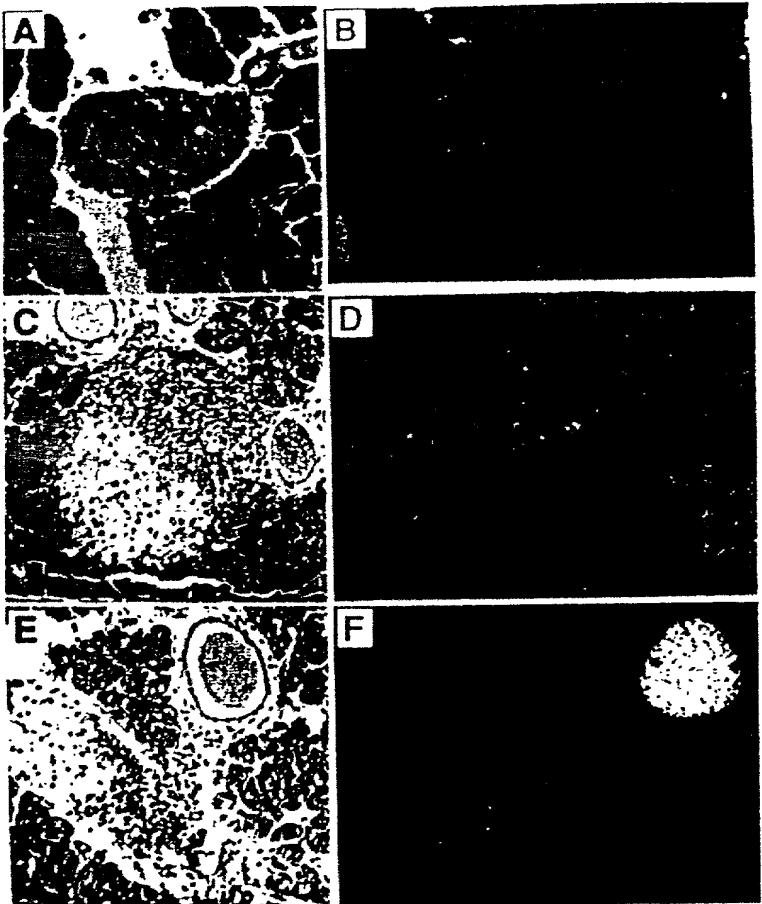


FIG. 16

20067432.920402

TITLE: MURINE 4-1BB GENE
INVENTORS NAME: Byoung S. Kwon
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4-1BB
Sina
DG17

(64) C R V C A G Y F R F K K - - F - C S S T H N A E C - E C
(71) C P V C F D Y V - - - I L Q C S S G H L V - C V S C
(25) C P I C F E F I - Y K K Q I Y Q C K S G H H A - C K E C

FIG. 17

TITLE: MURINE 4-1BB GENE
INVENTORS NAME: Byoung S. Kwon
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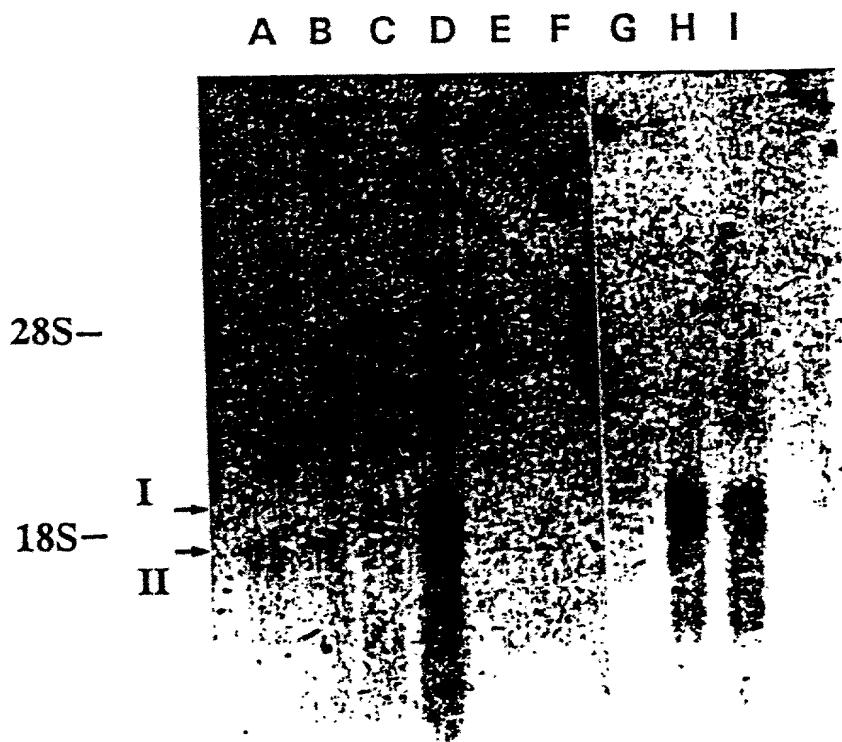


FIG. 18

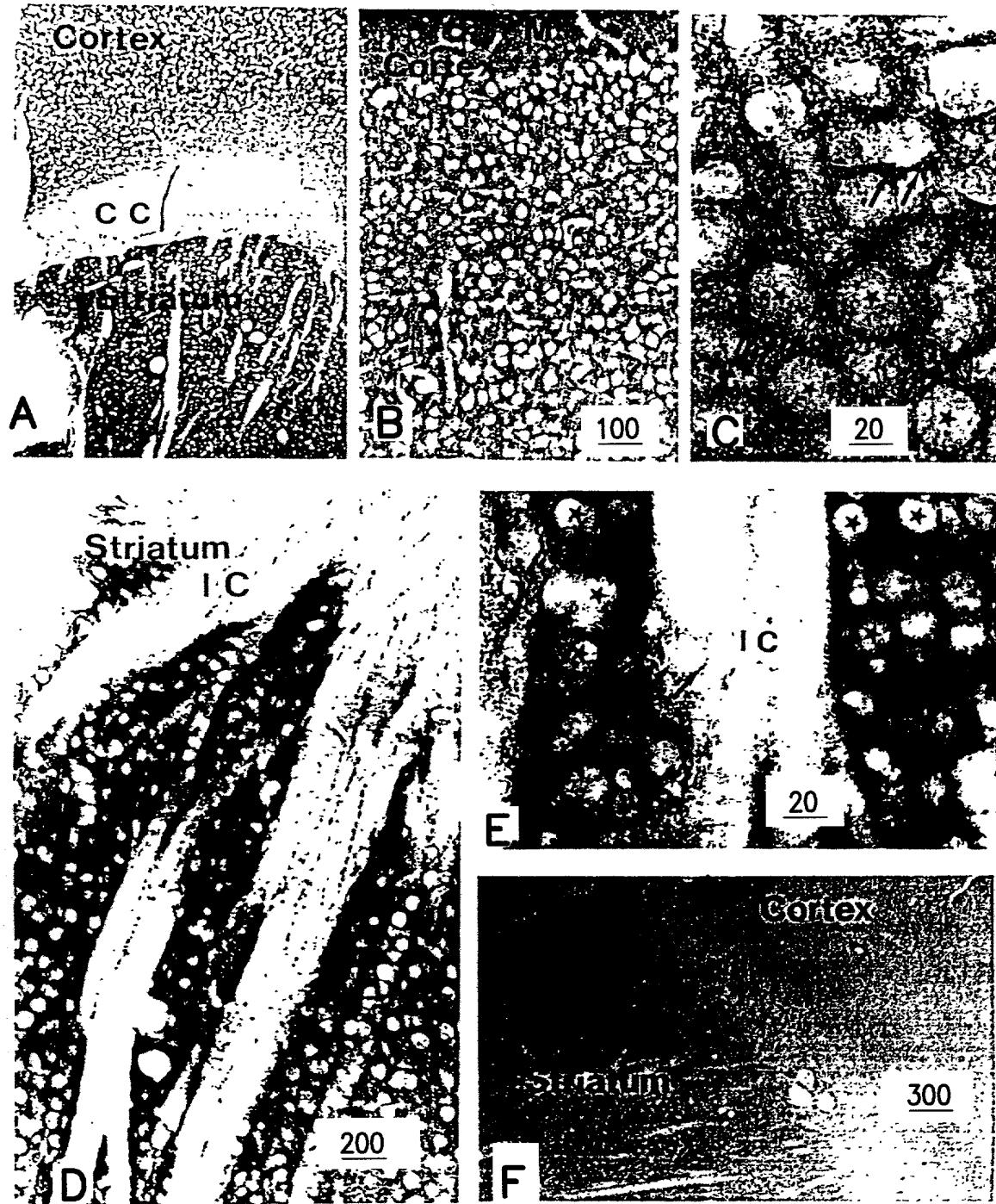


FIG. 19

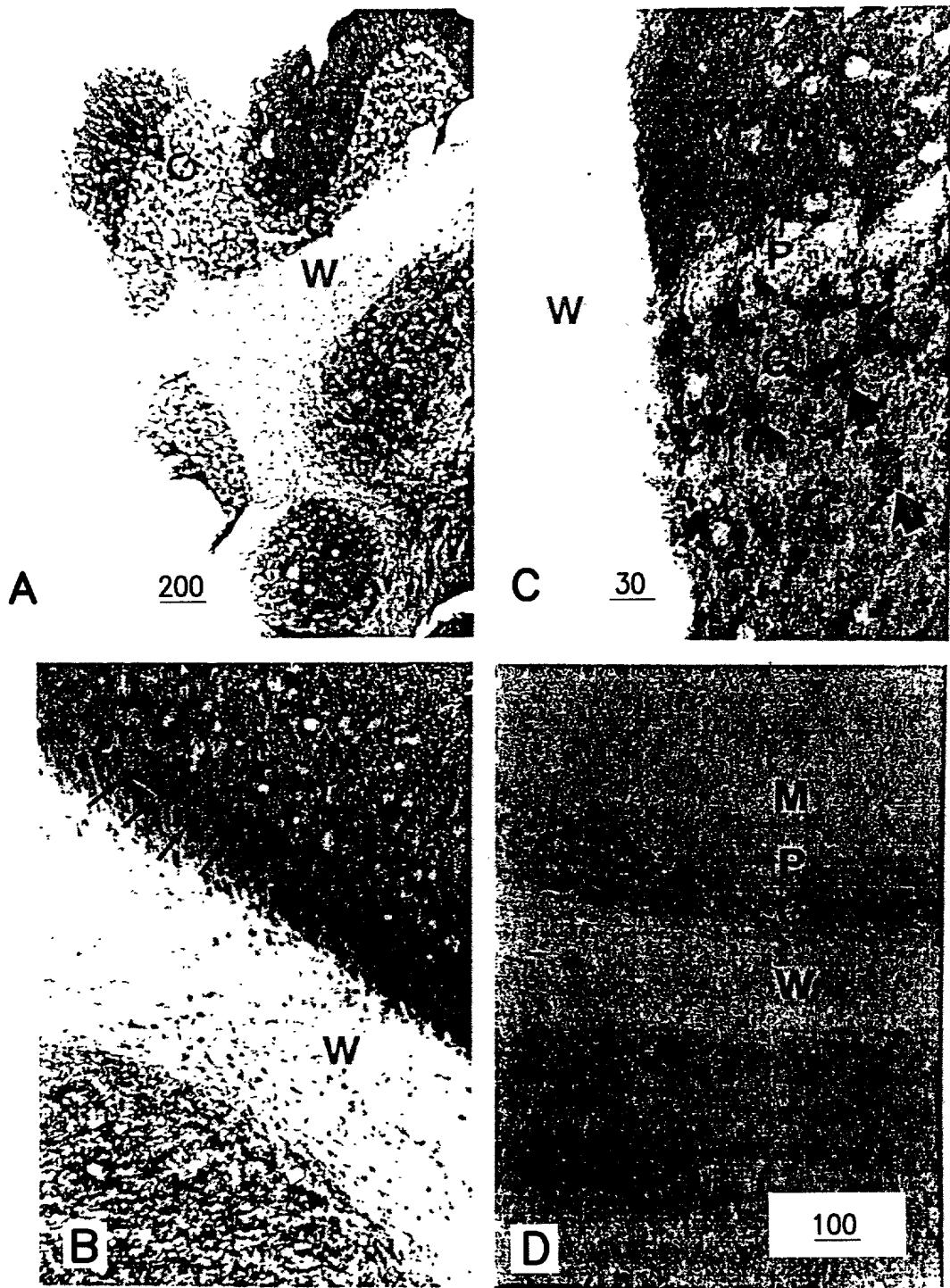


FIG. 20

TITLE: MURINE 4-1BB GENE
INVENTORS NAME: Byoung S. Kwon
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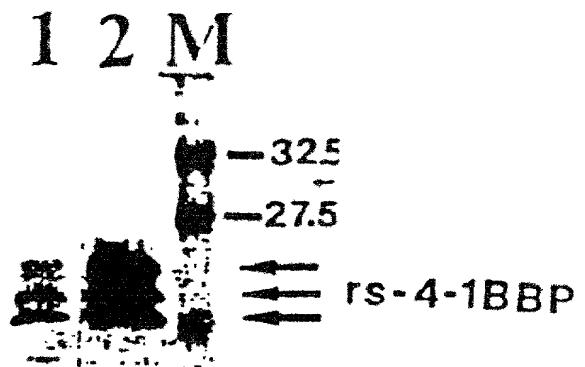


FIG. 21

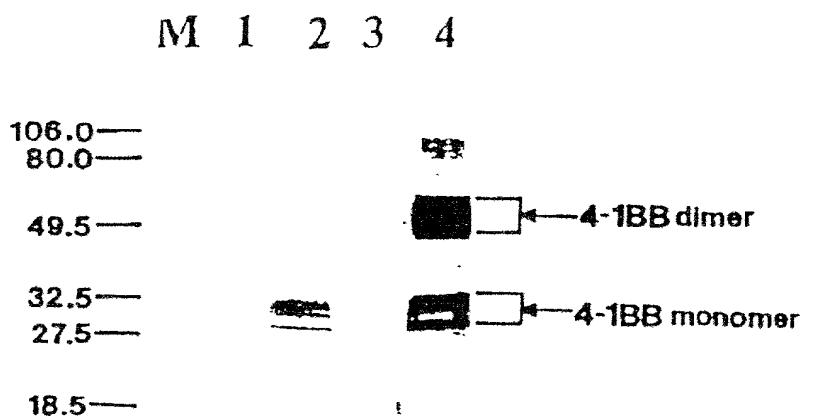


FIG. 22

TITLE: MURINE 4-1BB GENE
INVENTORS NAME: Byoung S. Kwon
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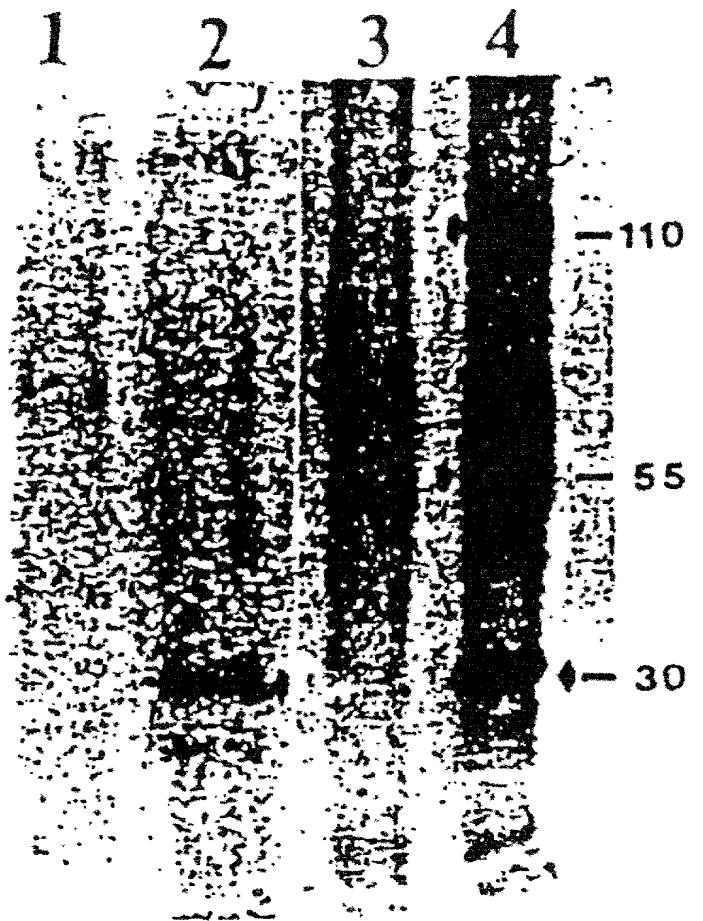


FIG. 23

TITLE: MURINE 4-1BB GENE
INVENTORS NAME: Byoung S. Kwon
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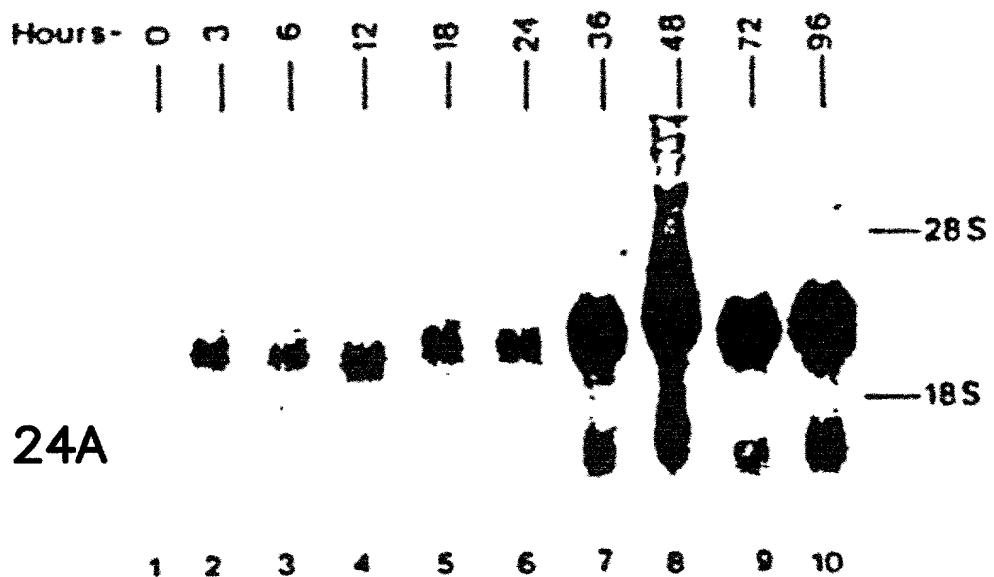


FIG. 24A

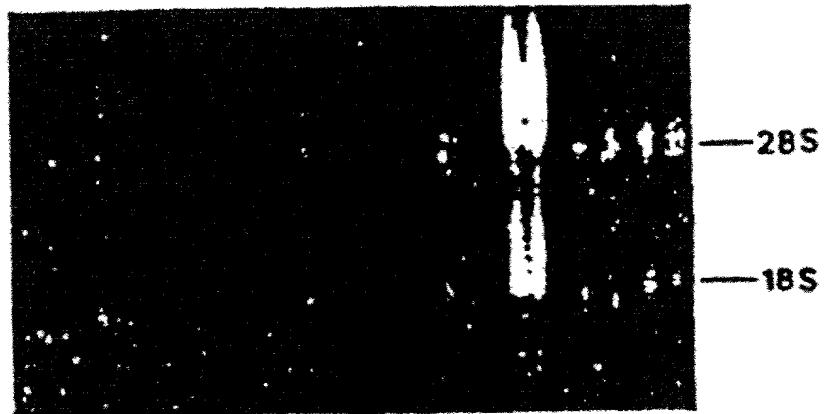


FIG. 24B

TITLE: MURINE 4-1BB GENE
INVENTORS NAME: Byoung S. Kwon
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FIG. 25A

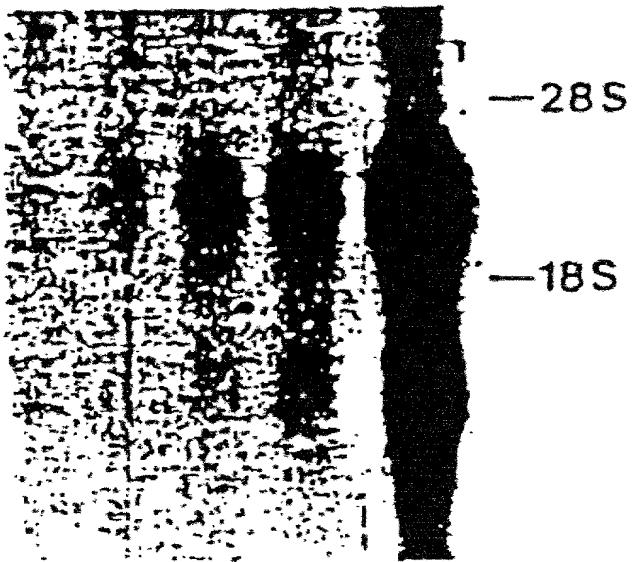
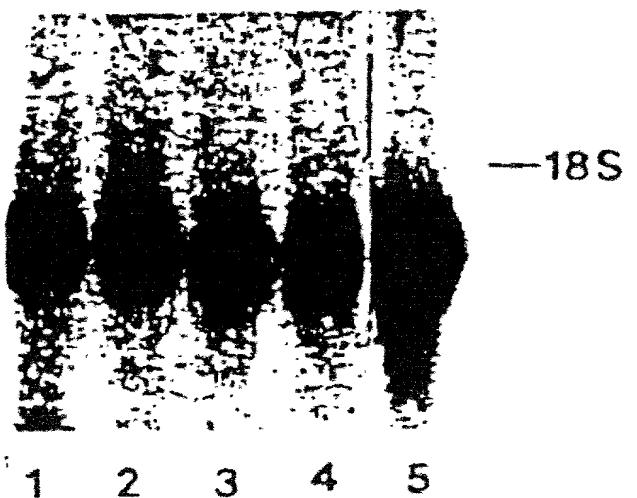


FIG. 25B



1000Y123-020402

TITLE: MURINE 4-1BB GENE
INVENTORS NAME: Byoung S. Kwon
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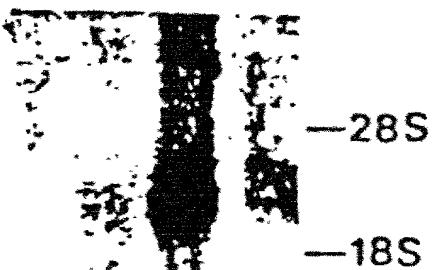


FIG. 26A

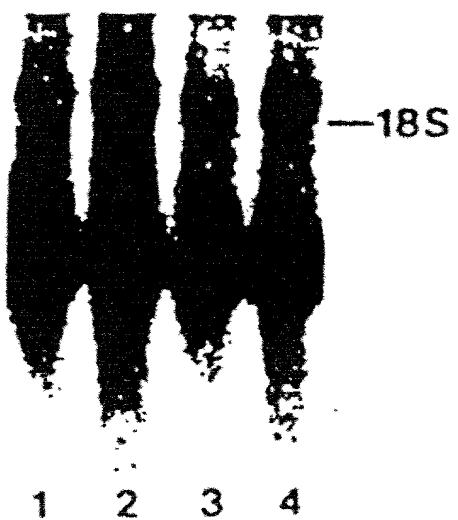


FIG. 26B

16067422.020402

TITLE: MURINE 4-1BB GENE
INVENTORS NAME: Byoung S. Kwon
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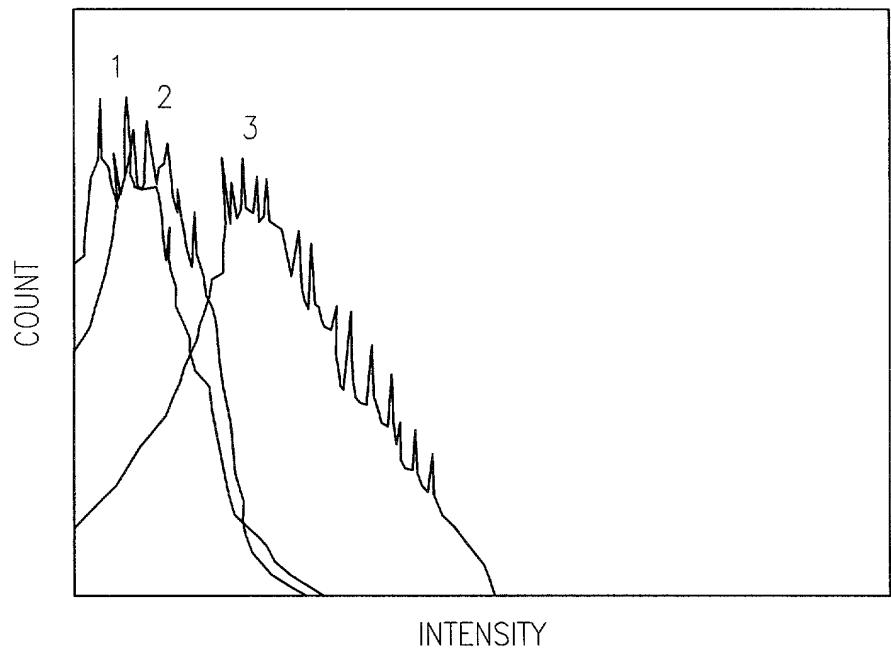


FIG. 27A

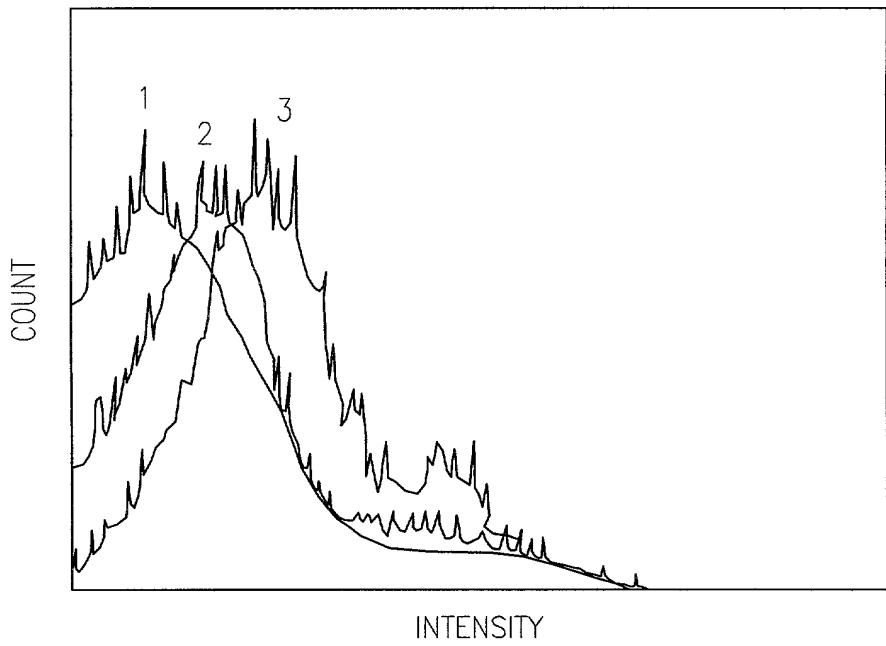


FIG. 27B

TITLE: MURINE 4-1BB GENE
INVENTORS NAME: Byoung S. Kwon
DOCKET NO.: 740.009US2

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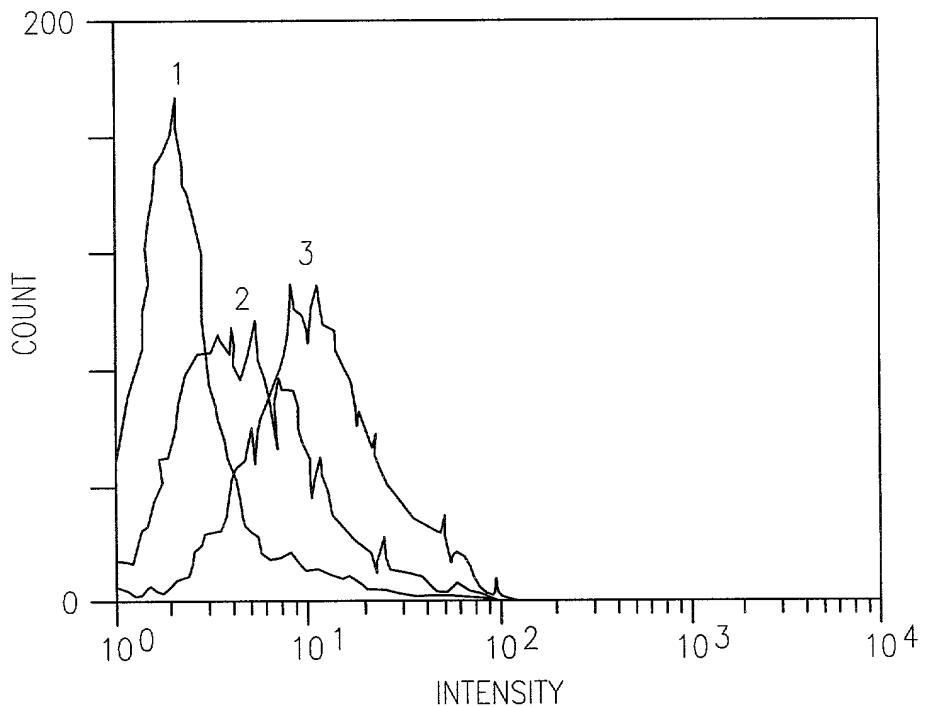


FIG. 27C

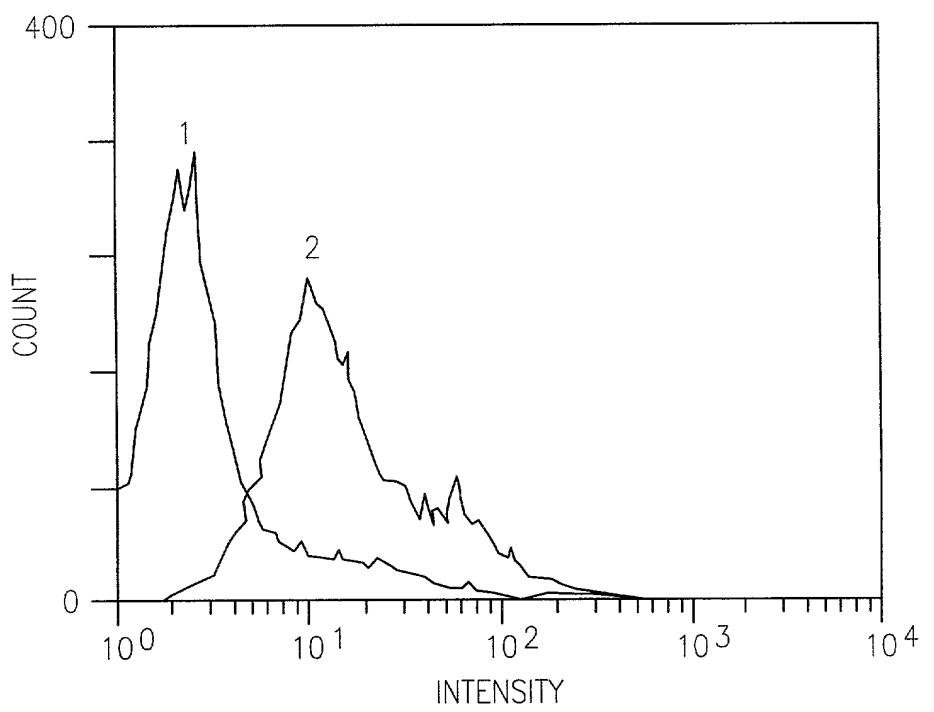
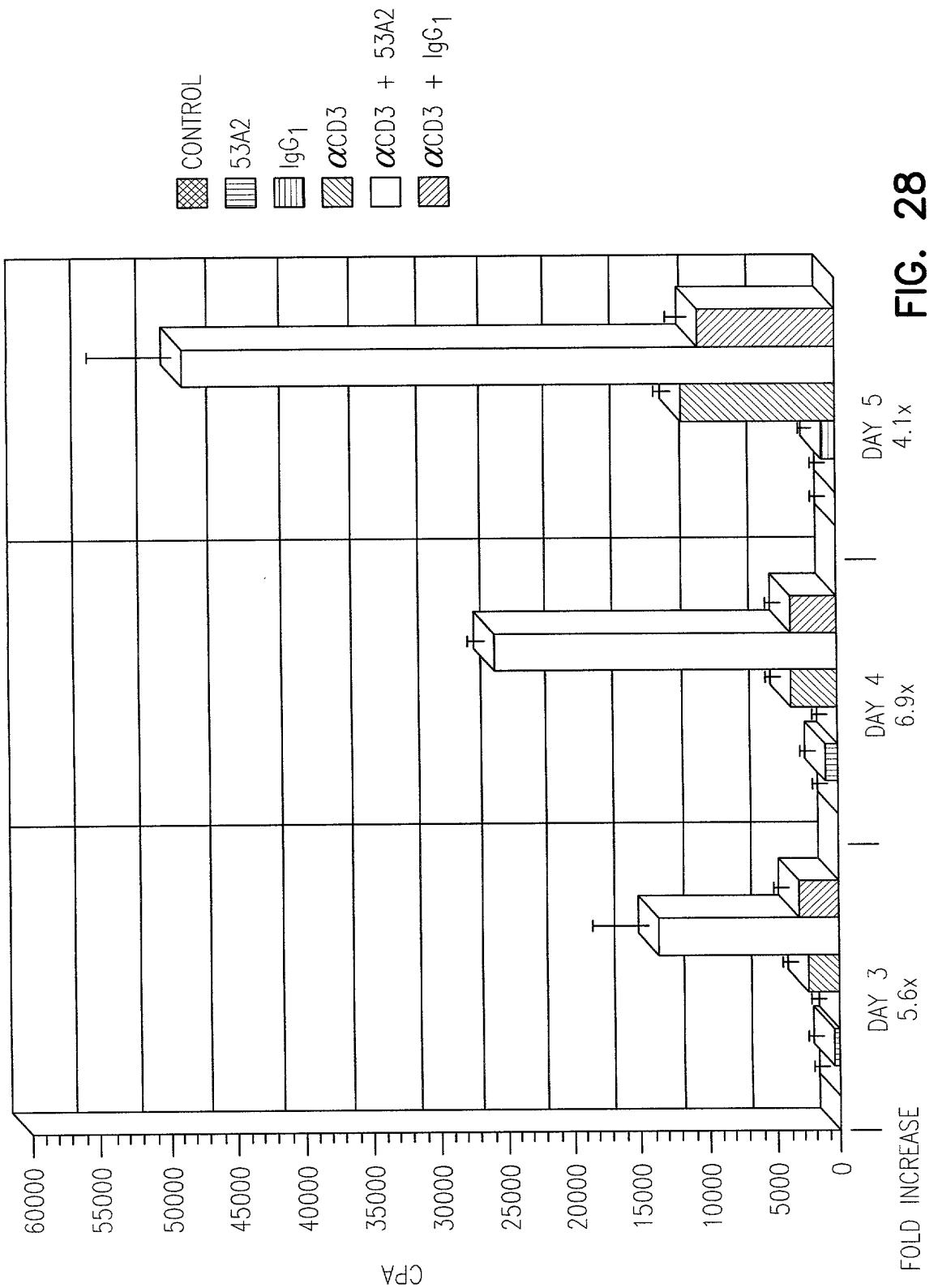


FIG. 27D

TITLE: MURINE 4-1BB GENE
INVENTORS NAME: Byoung S. Kwon
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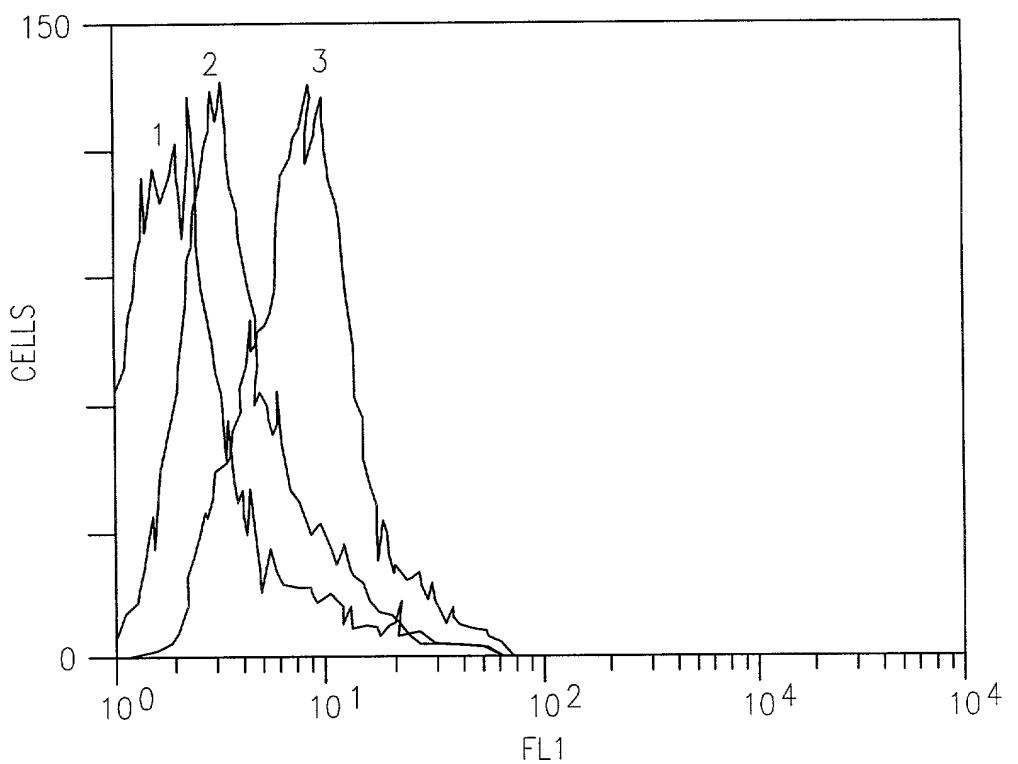


FIG. 29A

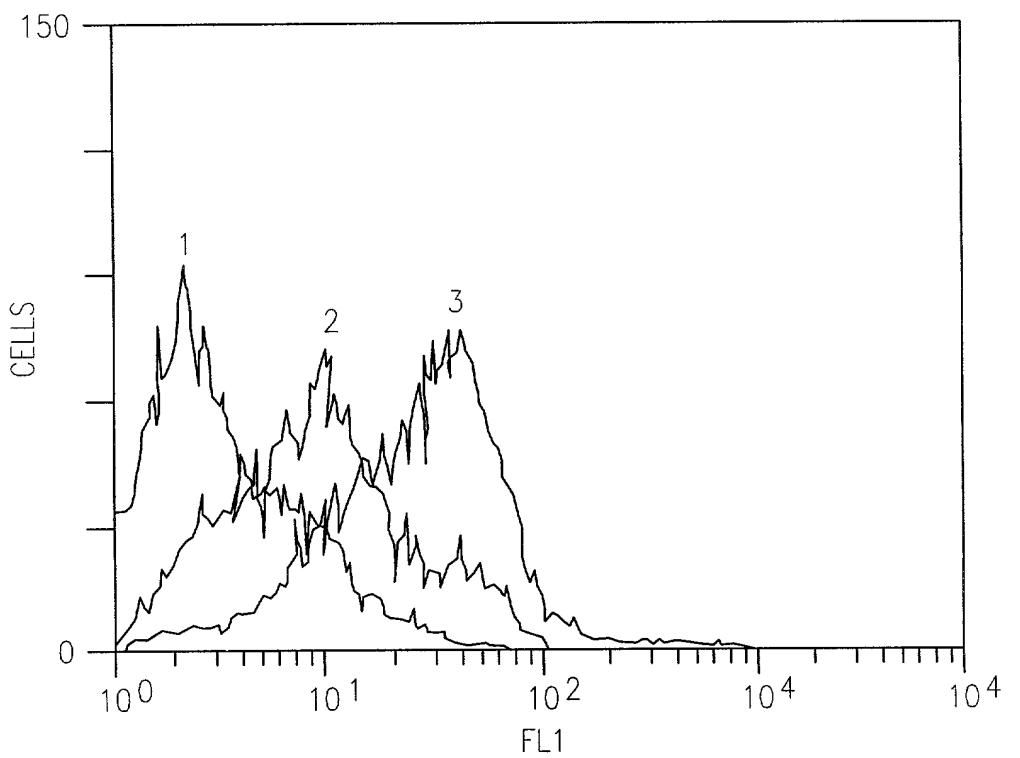


FIG. 29B

TITLE: MURINE 4-1BB GENE
INVENTORS NAME: Byoung S. Kwon
DOCKET NO.: 740.009US2

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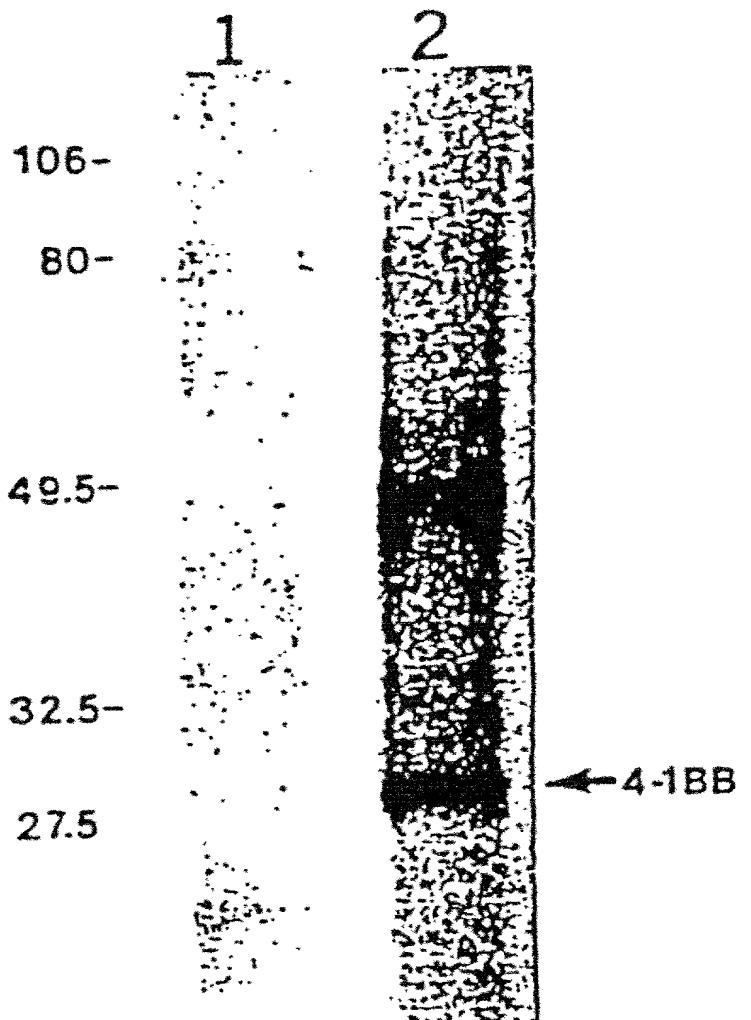


FIG. 29C

1067132.00402

TITLE: MURINE 4-1BB GENE
INVENTORS NAME: Byoung S. Kwon
DOCKET NO.: 740.009US2

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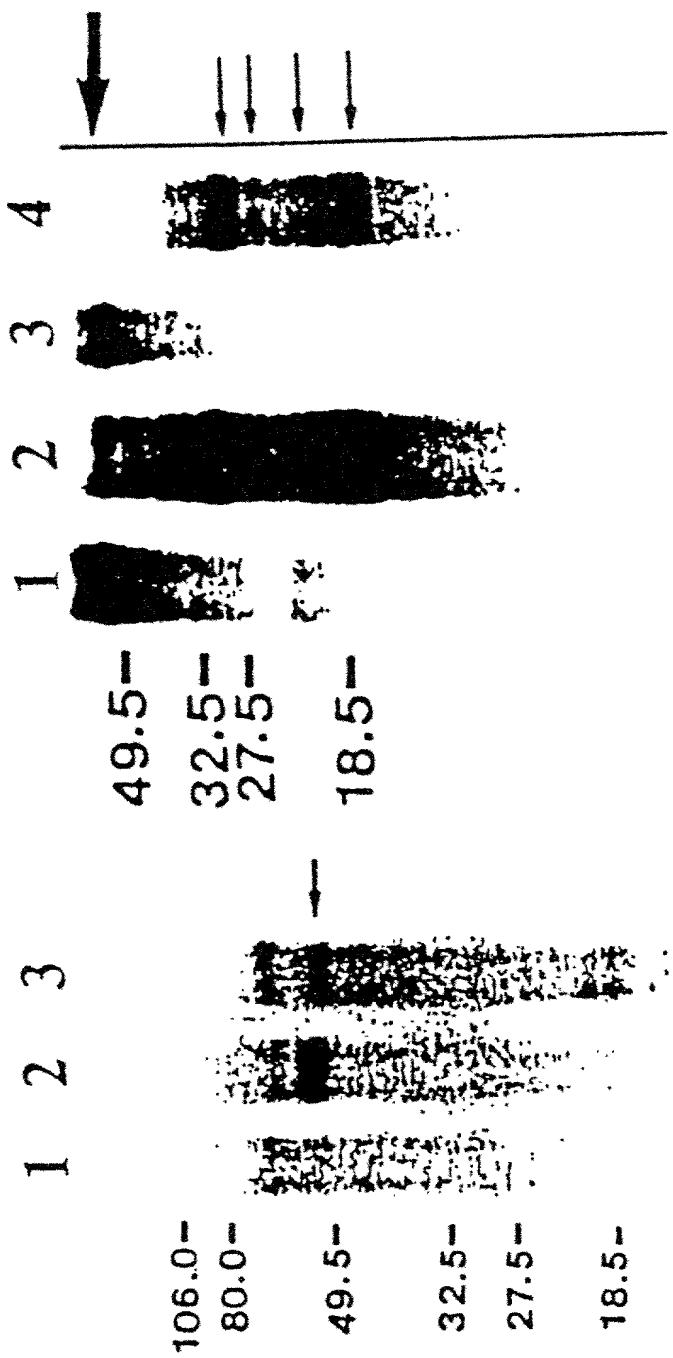


FIG. 30A

FIG. 30B

TITLE: MURINE 4-1BB GENE
INVENTORS NAME: Byoung S. Kwon
DOCKET NO.: 740.009US2

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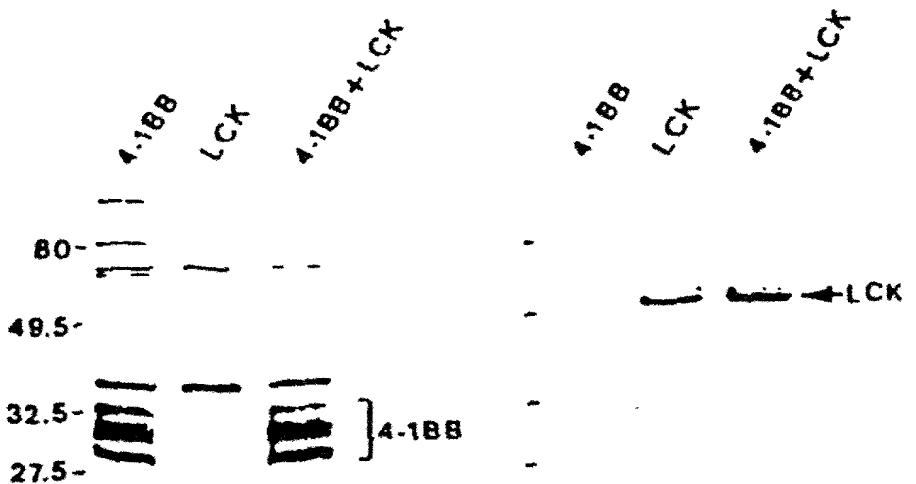


FIG. 31A

FIG. 31B

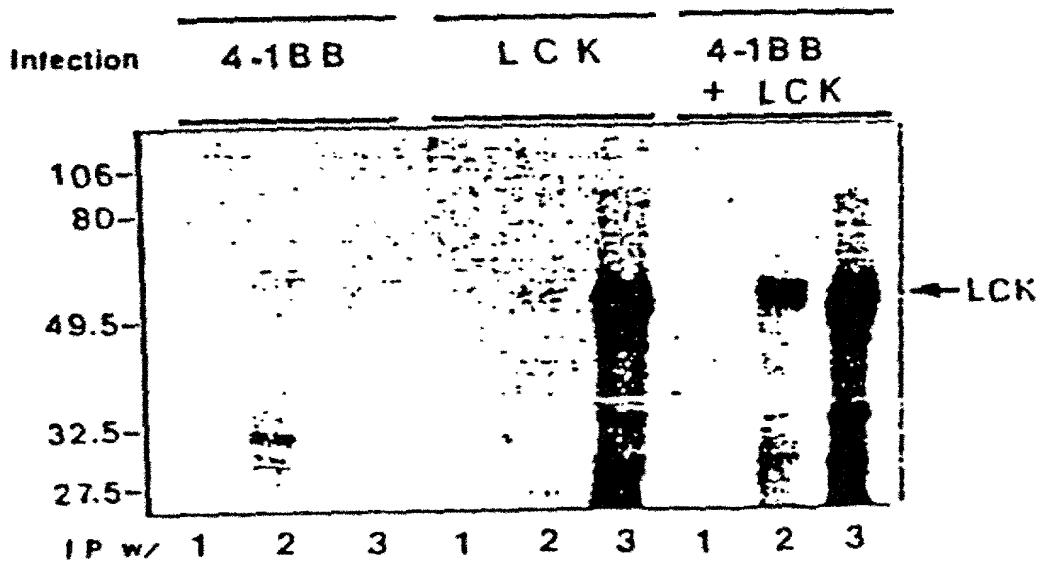


FIG. 31C

TITLE: MURINE 4-1BB GENE
INVENTORS NAME: Byoung S. Kwon
DOCKET NO.: 740.009US2

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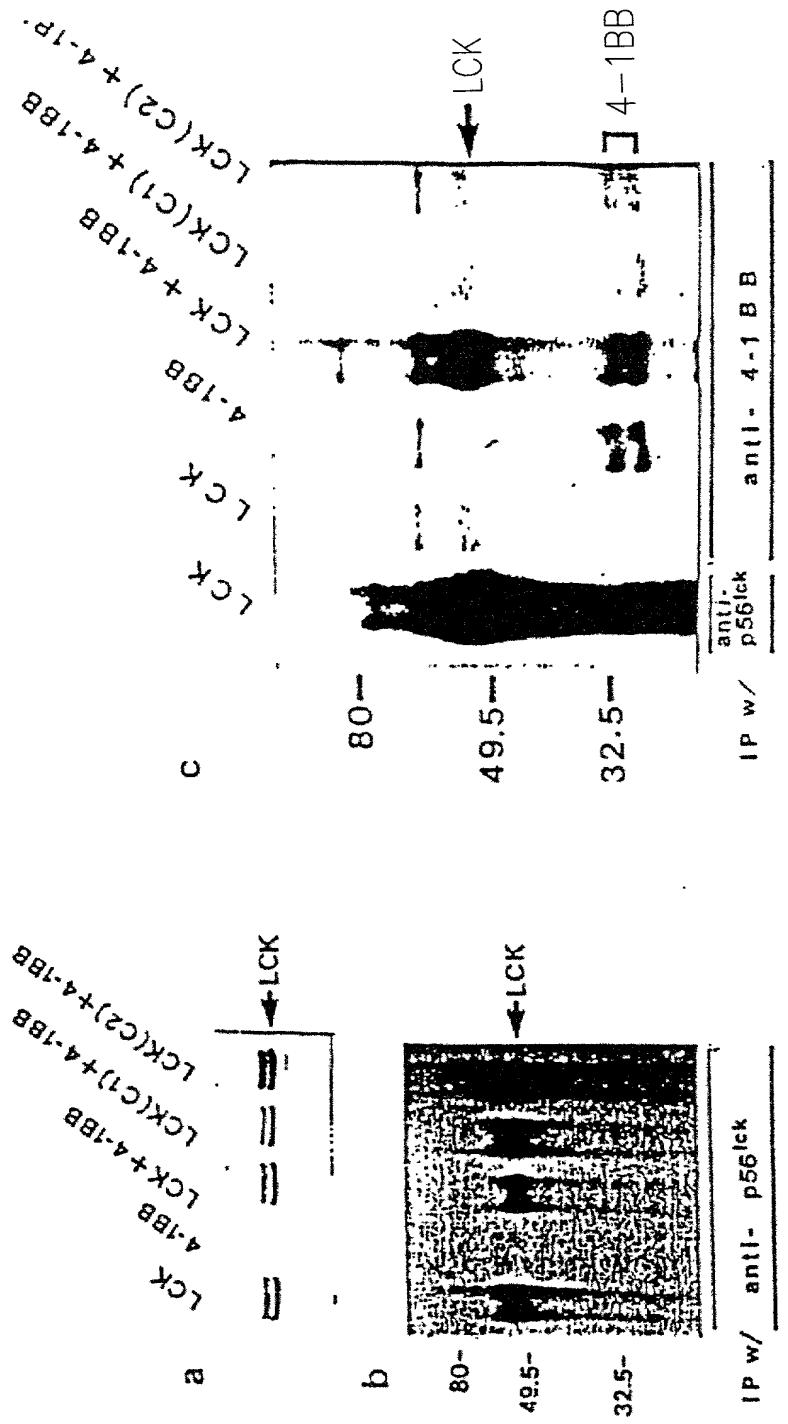


FIG. 32A

FIG. 32B

TITLE: MURINE 4-1BB GENE
INVENTORS NAME: Byoung S. Kwon
DOCKET NO.: 740.009US2

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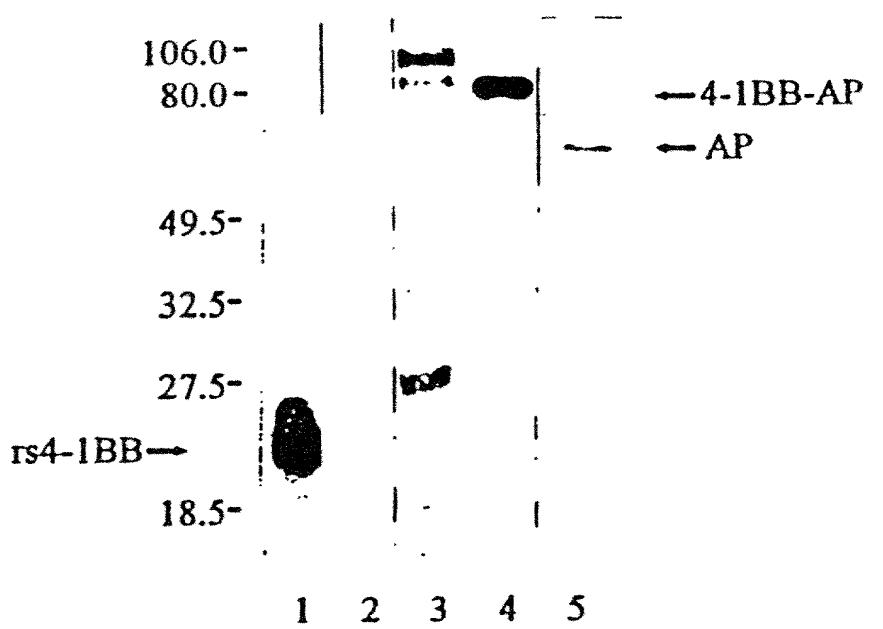


FIG. 33

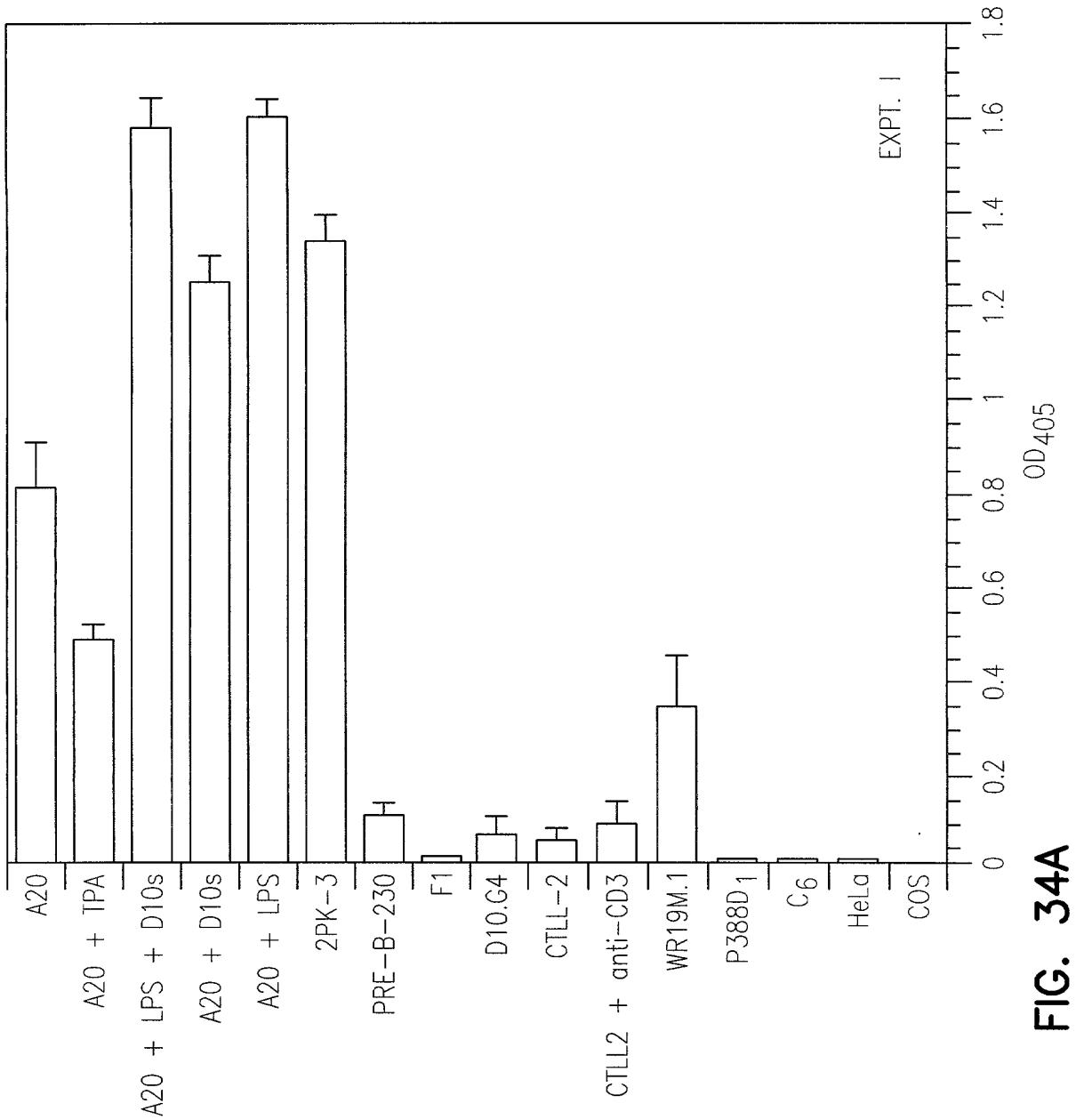


FIG. 34A

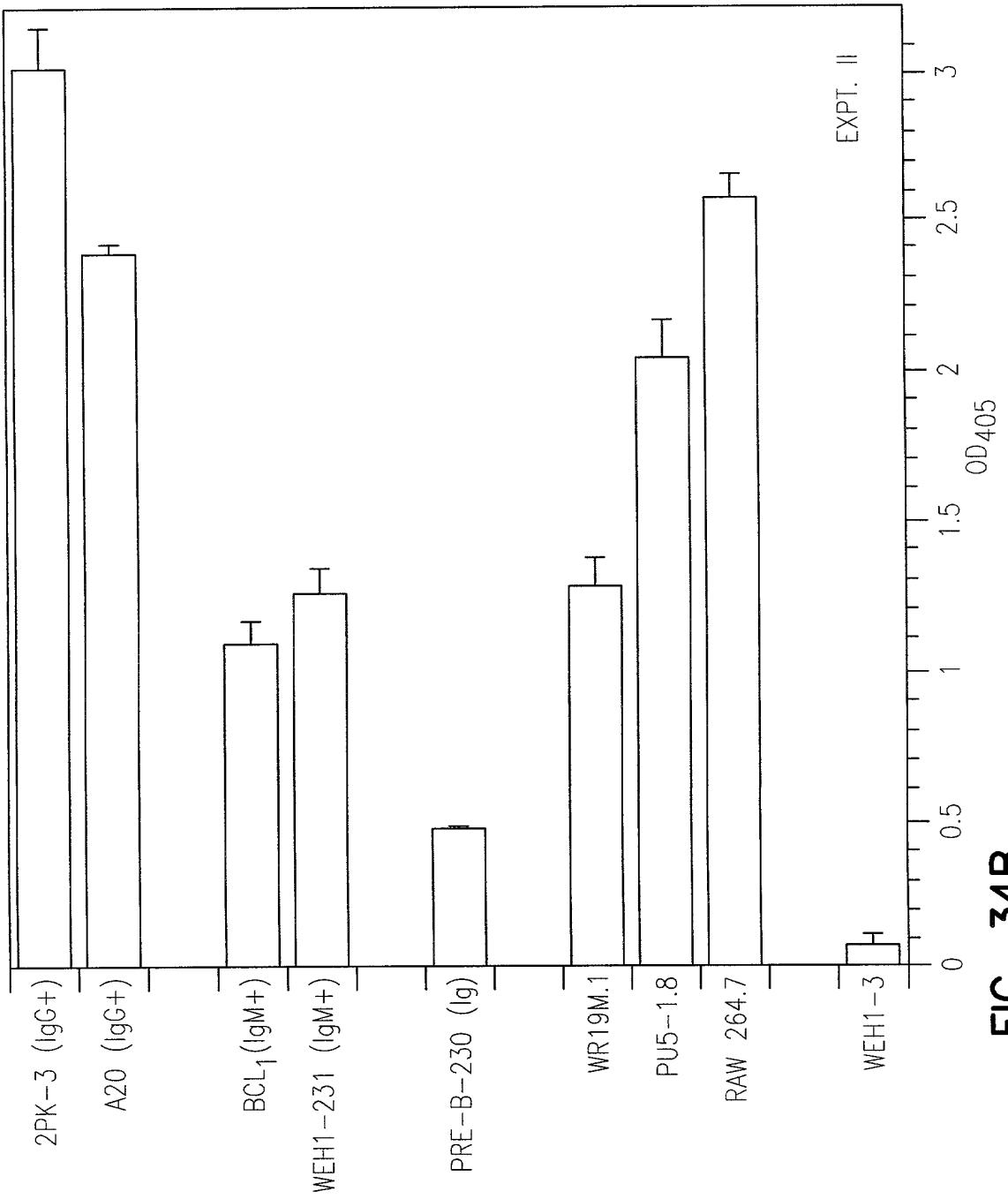


FIG. 34B

TITLE: MURINE 4-1BB GENE
INVENTORS NAME: Byoung S. Kwon
DOCKET NO.: 740.009US2

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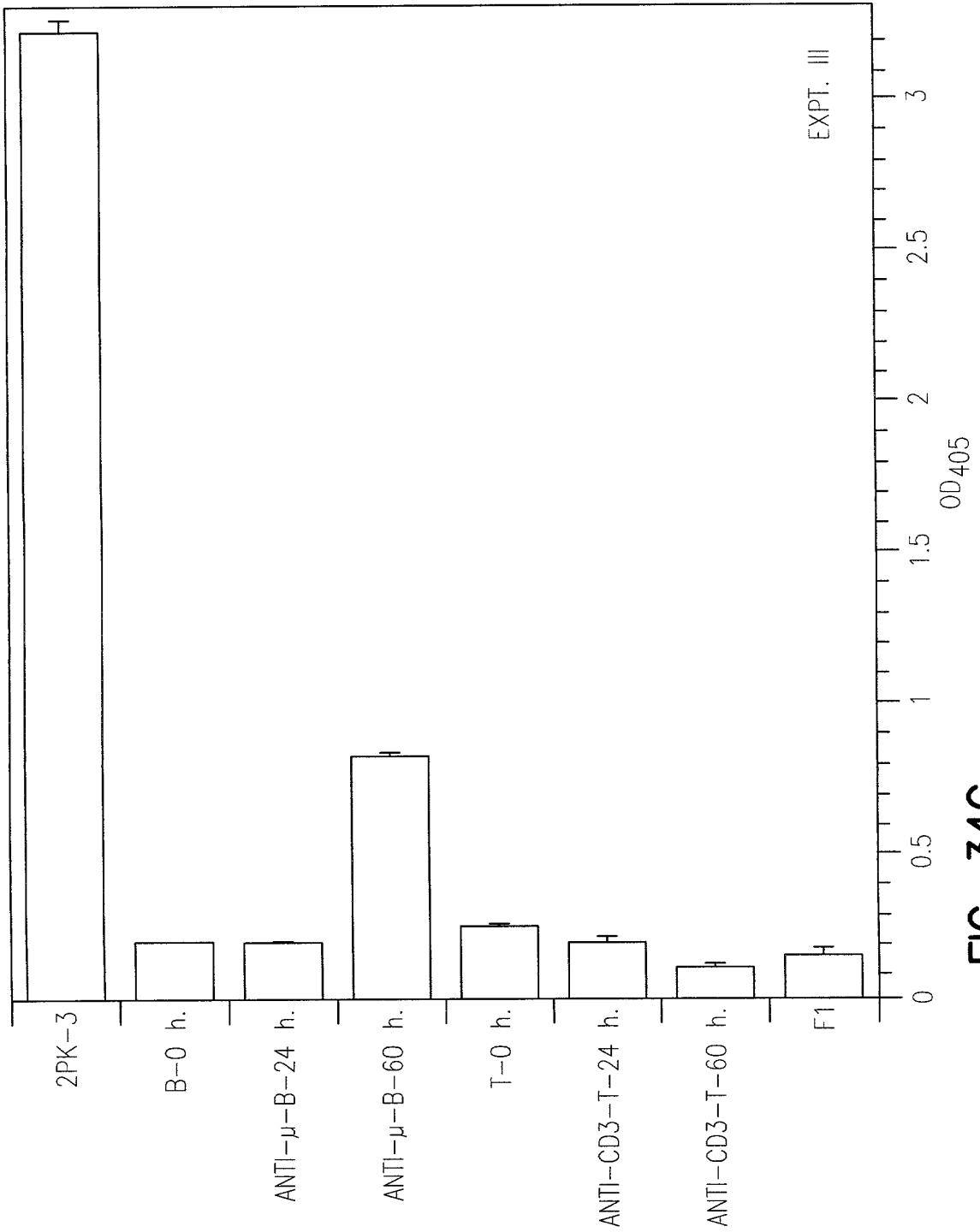


FIG. 34C

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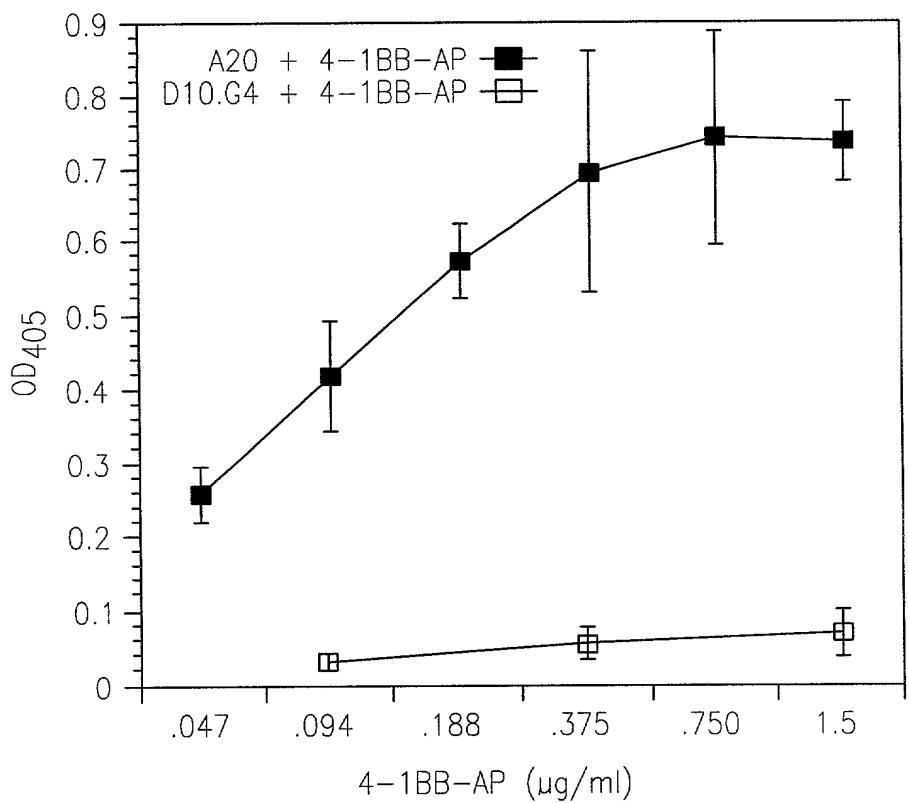


FIG. 35A

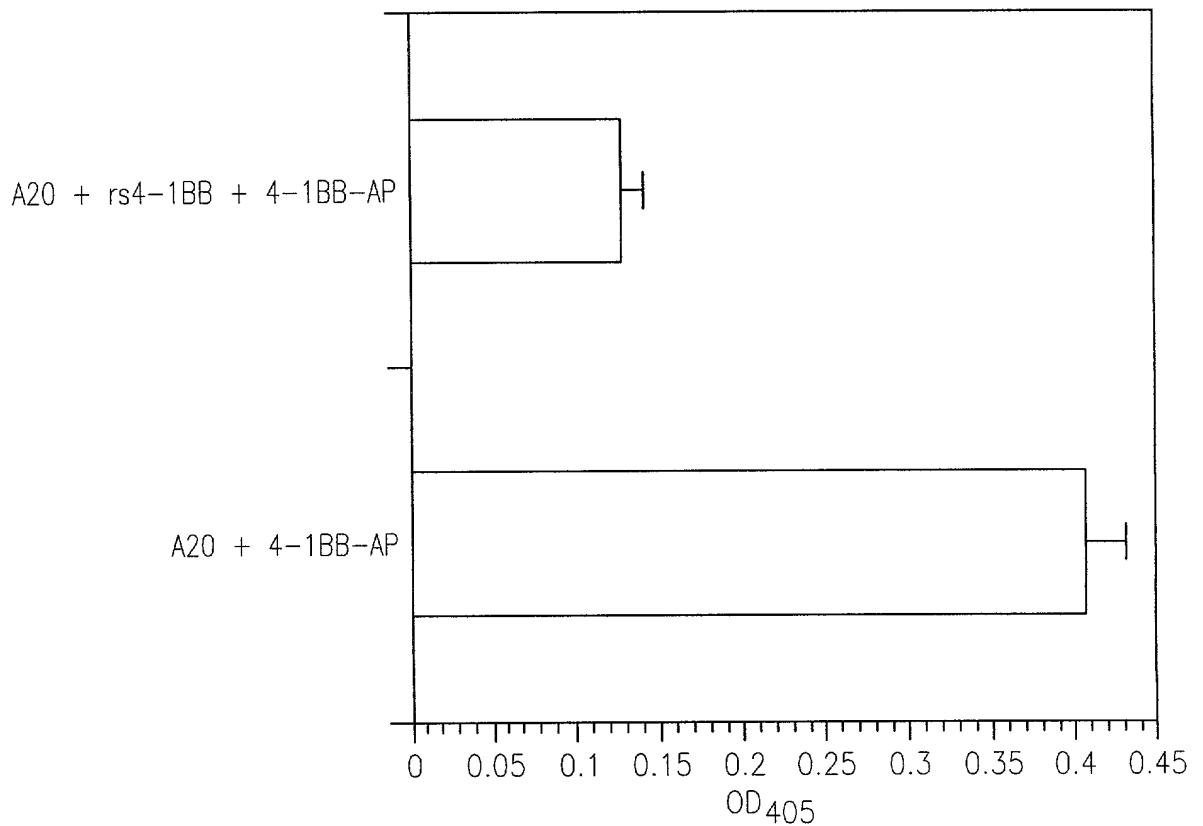


FIG. 35B

TITLE: MURINE 4-1BB GENE
INVENTORS NAME: Byoung S. Kwon
DOCKET NO.: 740.009US2

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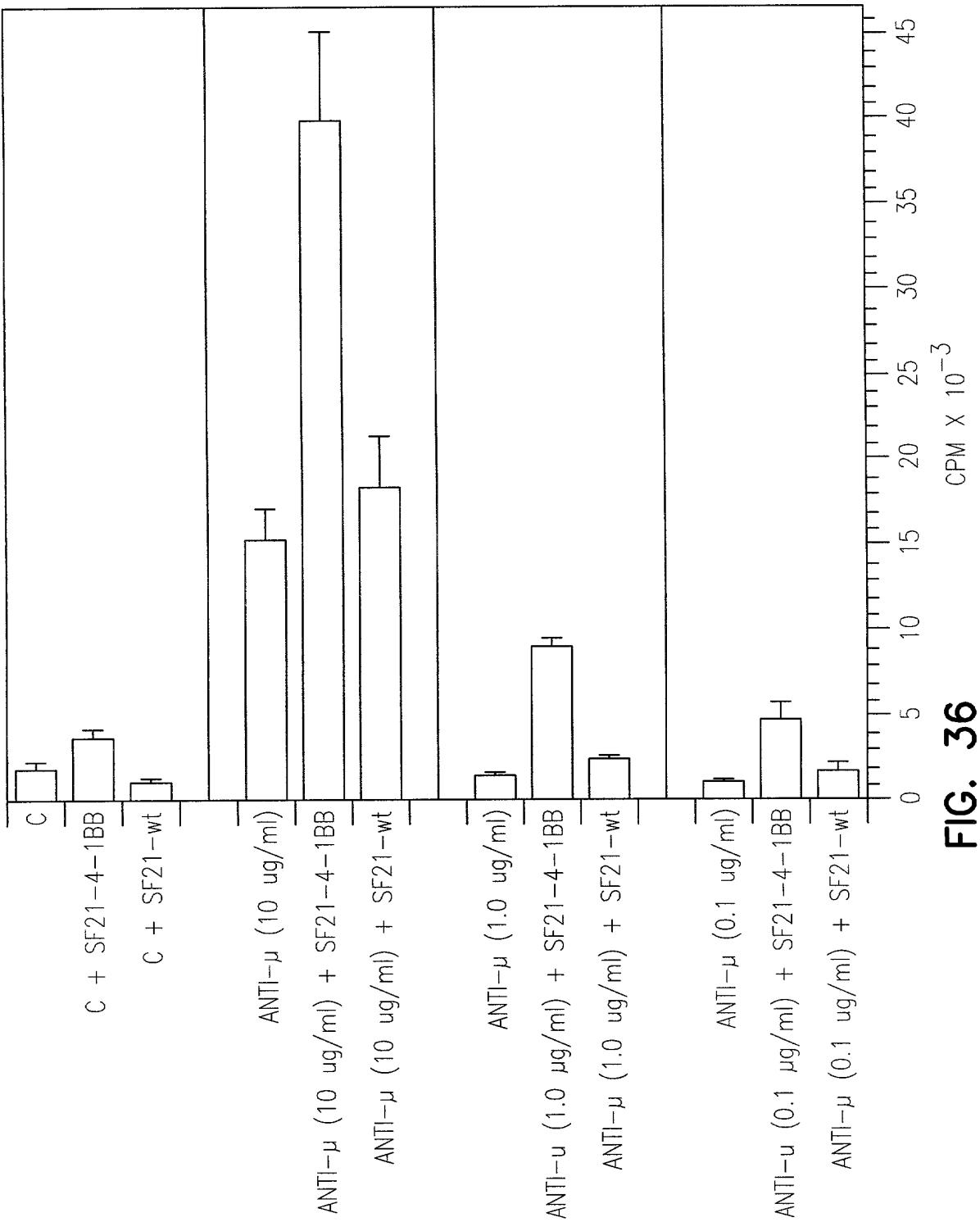


FIG. 36